



**DEPARTMENT OF CITY PLANNING**  
**RECOMMENDATION REPORT**

**City Planning Commission**

**Date:** Thursday, February 8, 2024  
**Time:** After 8:30 a.m.\*  
**Place:** Los Angeles City  
Council Chamber, Room 340  
200 North Spring Street  
Los Angeles, CA 90012

*And via Teleconference. Information will be provided no later than 72 hours before the meeting on the meeting agenda published at <https://planning.lacity.org/about/commissions-boards-hearings> and/or by contacting [cpc@lacity.org](mailto:cpc@lacity.org).*

**Public Hearing:** January 9, 2024  
**Appeal Status:** Density Bonus Off-menu incentives are not further appealable. Density Bonus On-menu incentives and Conditional Use are appealable to City Council.

**Case No.:** CPC-2023-4573-DB-CU-HCA  
**CEQA No.:** ENV-2023-4574-CE  
**Incidental Cases:** N/A  
**Related Cases:** N/A  
**Council No.:** 5 – Yaroslavsky  
**Community Plan Area:** Wilshire  
**Specific Plan:** N/A  
**Certified NC Zone:** Mid City West C2-1VL-O  
**Land Use Designation:** Neighborhood Office Commercial  
**Applicant:** Daniel Taban, Flores Fund LLC  
**Representative:** Jonathan Yang, Irvine & Associates, Inc

**Expiration Date:** March 24, 2024  
**Multiple Approval:** Yes

**PROJECT**

**LOCATION:** 8331, 8335, 8337, 8339, 8343, 8349 West 3rd Street

**PROPOSED PROJECT:**

The proposed project involves the construction, use, and maintenance of a new eight-story, mixed use residential building, 100 feet in height, containing a total of 77 dwelling units with eight (8) units reserved for Extremely Low Income Households. The project will contain approximately 90,066 square feet of floor area, equating to a total floor area ratio (FAR) of approximately 4.66:1, including approximately 11,026 square feet of commercial retail space on the ground floor. The project will provide approximately 2,188 square feet of credited open space that includes a podium courtyard, sky deck, business lounge, fitness room, and aqua lounge. Additionally, 5,328 square feet of non-credited open space will include private balconies; a podium courtyard, a business lounge, a fitness room, and an aqua lounge. The project will provide 38 vehicle parking spaces and a total of 78 bicycle parking spaces.

**REQUESTED ACTIONS:**

1) Pursuant to CEQA Guidelines, Section 15332, Class 32, an Exemption from CEQA, and that there is no substantial evidence demonstrating that an exception to a categorical exemption pursuant to CEQA Guidelines, Section 15300.2 applies;

- 2) Pursuant to LAMC Section 12.22 A.25, a Density Bonus to permit a housing development project consisting of 77 dwelling units, [with 8 units – 15 percent of the base density set aside for Extremely Low Income Households], along with the following Off-Menu Incentives and Waivers of Development Standards:
  - a. An Off-Menu Incentive to permit a floor area ratio (FAR) of up to 4.66:1, in lieu of the 1.5:1 FAR otherwise permitted;
  - b. An Off-Menu Incentive to permit up to a 75 percent reduction in required open space;
  - c. An Off-Menu Incentive to permit a maximum building height of up to 100 feet, up to five (5) additional stories, in lieu of 45 feet, three (3) stories, otherwise permitted;
  - d. A Waiver of Development Standards to permit a reduced westerly rear yard setback of zero (0) feet in lieu of 20 feet otherwise required;
  - e. A Waiver of Development Standards to waive the loading space requirement otherwise required pursuant to LAMC Section 12.21 C.6; and
- 3) Pursuant to Los Angeles Municipal Code (LAMC) Section 12.24 U.26, a Conditional Use Permit to allow a Density Bonus for a housing development project in which the density increase is greater than otherwise permitted by LAMC Section 12.22 A.25.

#### **RECOMMENDED ACTIONS:**

- 1) **Determine**, that based on the whole of the administrative record, the Project is exempt from CEQA pursuant to CEQA Guidelines, Section, 15332, and there is no substantial evidence demonstrating that an exception to a categorical exemption pursuant to CEQA Guidelines, Section 15300.2 applies;
- 2) **Approve** a Density Bonus Compliance Review, pursuant to LAMC Section 12.22 A.25, to permit a housing development project consisting of 77 dwelling units, of which 8 units will be set aside for Extremely Low Income households and with the following Incentives and waivers of development standards:
  - a. An Off-Menu Incentive to permit an increase in floor area ratio (FAR) to 4.66:1 in the C2-1VL Zone, in lieu of the otherwise permitted 1.5:1;
  - b. An Off-menu Incentive to provide up to a 75 percent reduction in open space to 2,188 square feet, in lieu of 8,750 square feet otherwise required;
  - c. An Off-Menu Incentive to permit a maximum building height of up to 100 feet, up to five (5) additional stories, in lieu of 45 feet, three (3) stories, otherwise permitted;
  - d. A Waiver of Development Standards to permit a reduced westerly rear yard setback of zero (0) feet in lieu of 20 feet otherwise required;
  - e. A Waiver of Development Standards to waive the loading space requirement otherwise required pursuant to LAMC Section 12.21 C.6; and
- 3) **Approve** a Conditional Use to allow a Density Bonus pursuant to LAMC Section 12.24 U.26 for a housing development project in which the density increase is greater than otherwise permitted by LAMC Section 12.22 A.25;

- 4) **Adopt** the attached Conditions of Approval; and
- 5) **Adopt** the attached Findings.

VINCENT P. BERTONI, AICP  
Director of Planning



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Heather Bleemers  
Senior City Planner



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Trevor Martin  
City Planner



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Alice Okumura  
City Planning Associate

**ADVICE TO PUBLIC:** \*The exact time this report will be considered during the meeting is uncertain since there may be several other items on the agenda. Written communications may be mailed to the *Commission Secretariat, Room 272, City Hall, 200 North Spring Street, Los Angeles, CA 90012* (Phone No. 213-978-1300). While all written communications are given to the Commission for consideration, the initial packets are sent to the week prior to the Commission's meeting date. If you challenge these agenda items in court, you may be limited to raising only those issues you or someone else raised at the public hearing agendaized herein, or in written correspondence on these matters delivered to this agency at or prior to the public hearing. As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability, and upon request, will provide reasonable accommodation to ensure equal access to these programs, services and activities. Sign language interpreters, assistive listening devices, or other auxiliary aids and/or other services may be provided upon request. To ensure availability of services, please make your request not later than three working days (72 hours) prior to the meeting by calling the Commission Secretariat at (213) 978-1299.

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## PROJECT ANALYSIS

### PROJECT SUMMARY

The proposed project involves the construction of a new, approximately 90,066 square foot, 8-story mixed use residential building containing a maximum of 77 dwelling units, including 8 Extremely Low Income affordable dwelling units, as shown in **Figure 1** below. The mixed-use development will consist of 10 studio units, 35 one-bedroom units, 27 two-bedroom units, and 5 three-bedroom units with approximately 11,026 square foot of commercial retail space on the ground floor. The proposed project will provide approximately 2,188 square feet of credited open space that includes a podium courtyard, sky deck, business lounge, fitness room, and aqua lounge. The 5,328 square feet of non-credited open space will include the square footage to be counted towards private balconies, the podium courtyard, business lounge, fitness room, and aqua lounge. The proposed project would reach a maximum height of 100 feet above grade. The proposed project would include a total of approximately 90,066 square feet of floor area, resulting in an approximate 4.66:1 FAR. The proposed project would provide 38 vehicle parking spaces on-site, 78 bicycle parking spaces, and 20 trees.



**Figure 1:** Rendering of the proposed project, view from the corner of West 3<sup>rd</sup> Street and Flores Street.

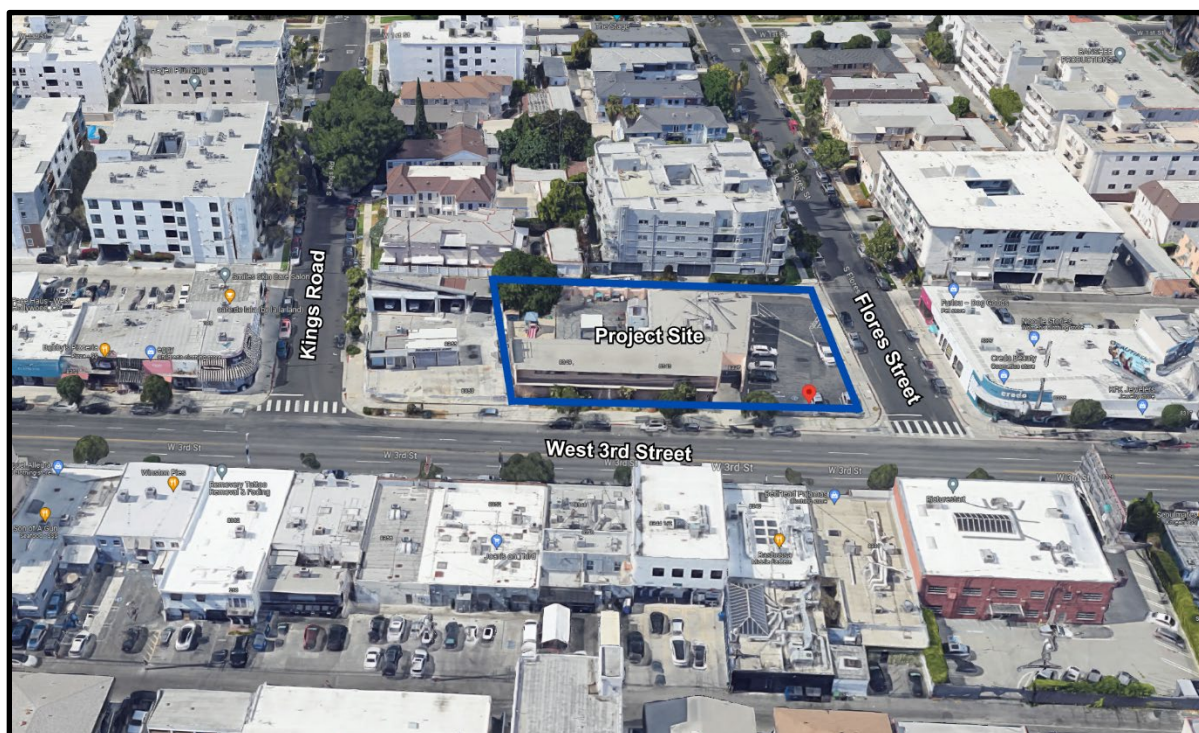
In order to facilitate the development of the proposed project, the applicant is requesting the following discretionary actions: 1) a Density Bonus for a Housing Development containing a total of 77 dwelling units [with 8 units – 15 percent of the base density (53 units) set aside for Extremely Low Income Households], along with the following Off-menu Incentives and Waivers of Development Standards: a) an Off-Menu Incentive to permit a Floor Area Ratio (FAR) of up to 4.66:1 FAR in lieu of the 1.5:1 FAR otherwise permitted; b) an Off-Menu Incentive to permit up to a 75 percent reduction in required open space; and c) an Off-Menu Incentive to permit a maximum building height of up to 100 feet, up to five additional stories, in lieu of 45 feet, three stories, otherwise permitted; d) a Waiver of Development Standard to permit a reduced westerly rear yard setback of zero feet in lieu of 20 feet otherwise required; e) A Waiver of Development Standard to waive the loading space requirement otherwise required pursuant to LAMC Section 12.21 C.6; and 2) a Conditional Use to allow a Density Bonus for a Housing Development Project in which

the requested additional 10% density increase is greater than otherwise permitted by LAMC Section 12.22 A.25.

## **PROJECT BACKGROUND**

### **Project Site**

The subject property is a rectangular-shaped site comprised of four (4) parcels, totaling approximately 19,338 square feet of lot area without ½ alley width and approximately 21,175 square feet of lot area with ½ alley width. The property has street frontages of approximately 275 feet along West 3<sup>rd</sup> Street and 109 feet along Flores Street. The site is currently vacant and was previously improved with a commercial facility. The previous commercial building improvement, currently demolished, did not contain any existing residential housing units.



**Figure 2:** Aerial view of the proposed project site.

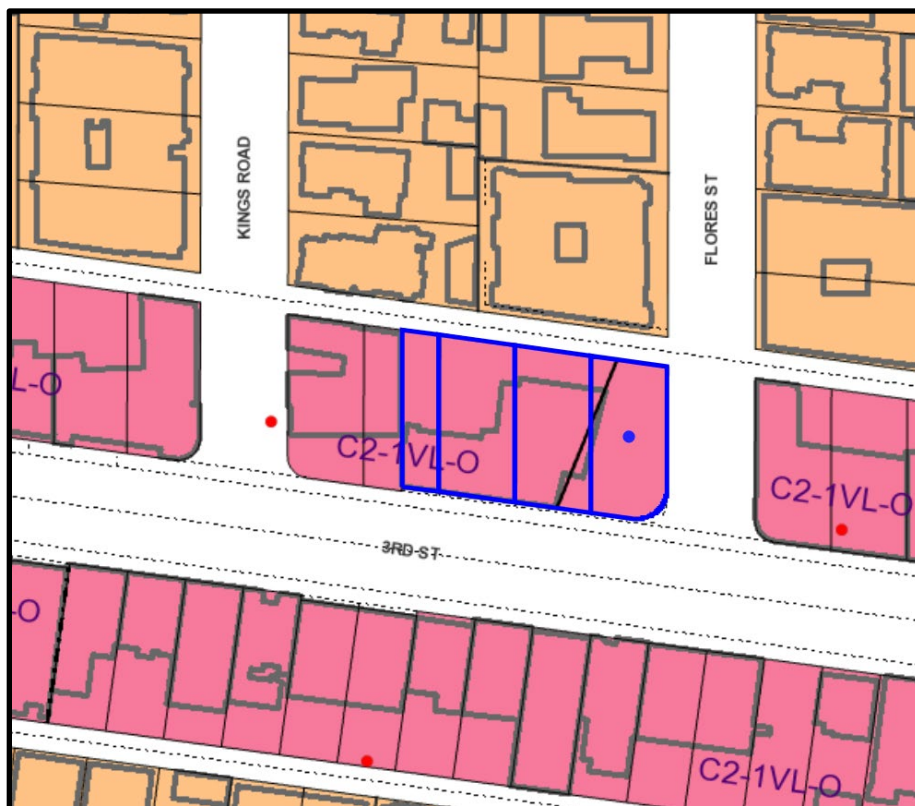
### **Surrounding Properties**

As shown in **Figure 2** above, the surrounding area consists of multi-story, medium-density residential housing developments and commercial uses. Properties to the north, across the alley, are zoned R3-1-O with a land use designation of Medium Residential and developed with multi-family residential buildings that vary from two- to three-stories in height. The property to the east, abutting the subject, is zoned C2-1VL-O with a land use designation of Neighborhood Office Commercial and developed with an auto shop. Properties to the south, across West 3<sup>rd</sup> Street, are zoned C2-1LD-O with a land use designation of Neighborhood Office Commercial and developed with one- and two-story commercial use structures. Properties to the west, across Flores Street, are zoned C2-1VL-O with a land use designation of Neighborhood Office Commercial and developed with multiple one- to two-story commercial use buildings.

### General Plan Land Use Designation and Zoning

The proposed project site is located within the Wilshire Community Plan, which is one of 35 Community Plans which together form the land use element of the General Plan. The Community Plan designates the site for Neighborhood Office Commercial land uses with corresponding zones of C1, C1.5, C2, C4, P, CR, RAS3, and RAS4. As shown in **Figure 3**, the proposed project site is zoned C2-1VL-O and is thus consistent with the range of zones under the corresponding land use designation. The C2-1VL-O Zone limits the project's density to one (1) dwelling unit per 400 square feet of lot area. Additionally, the Floor Area Ratio (FAR) permitted in the C2-1VL Zone is 1.5 to 1.

The proposed project site is located within a Transit Priority Area in the City of Los Angeles. The subject site is also located within an Urban Agriculture Incentive Zone, Methane Zone, Liquefaction Zone, and is located within approximately 2.50 kilometers of the nearest fault zone (Hollywood Fault).



**Figure 3:** ZIMAS Zoning Map of the proposed project site.

### Streets and Public Transit

West 3<sup>rd</sup> Street, adjoining the property to the south, is a designated Avenue II, dedicated with an 86 foot right-of-way.

Flores Street, adjoining the property to the east, is designated as a Local Street - Standard, dedicated with a 60 foot right-of-way.

A public alley adjoins the subject property to the north and is dedicated to a right-of-way width of 20 feet.

The project site is served by the Metro Local 105 and 16 bus lines, whose bus stops are located west of the project site at the intersection of 3<sup>rd</sup> Street and La Cienega Boulevard.

### Proposed Improvements

The proposed project involves the construction of a new, approximately 90,066 square foot, 8-story mixed use residential building containing a maximum of 77 dwelling units, including 8 Extremely Low Income affordable dwelling units. The mixed-use development will consist of 10 studio units, 35 one-bedroom units, 27 two-bedroom units, and 5 three-bedroom units with approximately 11,026 square foot of commercial retail space on the ground floor. The proposed project would reach a maximum height of 100 feet above grade. The proposed project would include a total of approximately 90,066 square feet of floor area, resulting in an approximate 4.66:1 FAR. The proposed project would provide 38 vehicle parking spaces on-site and 78 bicycle parking spaces.

The ground floor features commercial tenant spaces along West 3<sup>rd</sup> Street and includes amenities such as a lobby, retail space, trash room, and 12 bicycle parking spaces. The second level contains a vehicle parking garage for 18 commercial retail parking spaces, 66 bicycle parking spaces, an elevator lobby, and a storage area. The third level contains a vehicle parking garage for 20 commercial retail parking spaces, elevator lobby, business lounge, storage, and one residential unit. The fourth level features a fitness and pool lounge area, trash room, and a mix of residential units. Floors levels five through eight contain residential units. The roof contains a sky deck.

The project floor area will have a total of 11,026 square feet of commercial retail use located at the ground floor including, a 630 square-foot lobby, 756 square-foot for corridor space, and 209 square-foot for the trash room. The project includes a 2,002 square-foot fitness room, and a 960 square-foot business lounge, 2,188 square feet of credited open space, 1,127 square feet of landscaped areas, and 64,011 square feet of residential uses.

The proposed project provides 38 total commercial parking spaces on Level 2 and Level 3. Parking can be accessed from an ingress and egress driveway along the alley located on the northerly side of the project site.

The proposed project provides a total of 2,188 square feet of credited open space with indoor and outdoor amenities for residents, including 745 square feet of one podium courtyard, 909 square feet of sky deck, 178 square feet of business lounge, 178 square foot of fitness area, and 178 square foot of an aqua lounge area.

The non-credited open space is approximately a total of 5,328 square feet which includes 2,101 square feet of private decks, 855 square feet of podium courtyard, 778 square feet for business lounge, 802 square feet for fitness lounge, and 793 square feet for aqua lounge.



### Sustainability

The project will comply with the applicable provisions of the Los Angeles Green Building Code and California Green Building Standards Code in addition to providing Electric Vehicle (EV) charging stations and 78 bicycle parking stalls to encourage alternative modes for transportation.

### Landscaping

The project will provide a total of approximately 1,127 square feet of landscaped area along the perimeter of the ground floor and throughout the interior on Levels 4 and 8 of the subject property. Areas not used for buildings, driveways, or amenities will consist of landscaping. The planting palette consists of a variety of shrubs, perennials, and trees that are intended to provide shading where needed, reduce surface temperatures, as well as maintain compatibility with adjacent commercial and residential uses.

The subject property currently contains four (4) existing trees on site, three (3) street trees are located along the property's frontage on Third Street and one (1) street tree is located on the northwest corner of the project site, adjacent to the alley. The project will maintain the three (3) existing street trees on Third Street and provide a total of 17 new trees, including one (1) new street tree along Flores Street. Street trees will be planted in accordance with the Bureau of Street Services, Urban Forestry Division.

### **Relevant Cases on the Subject Property:**

There are no relevant cases on the subject property.

### **Relevant Cases on Surrounding Properties:**

The following relevant cases were identified to be within a 1,000-foot radius of the project site and filed within the past 10 years:

Case No. DIR-2017-1820-DB: On December 12, 2017, the Director of Planning approved the addition of 7 new dwelling units to an existing 29-unit apartment with 34 market rate units and 2 Very Low Income Affordable Units located at 107-119 South Sweetzer Avenue.

Case No. DIR-2015-1971-DB: On August 19, 2016, the proposed demolition a 5-unit apartment building and the construction of a new 5-story, 20-unit apartment building over a subterranean garage located at 8326 West Blackburn Avenue was terminated.

Case No. DIR-2014-4659-DB: On June 29, 2015, the Director of Planning approved the demolition of existing 4-unit apartment and construction of a new 5-story, 13-unit apartment building located at 124 South Croft Avenue.

Case No. DIR-2014-3622-DB: On May 28, 2015, the Director of Planning approved a new construction residential building with 36 units located at 121-131 South Kings Road.

### **Density Bonus / Affordable Housing Incentive Program**

In accordance with California Government Code Section 65915 and LAMC Section 12.22 A.25, in exchange for setting aside a minimum percentage of the project's units for affordable housing, the project is eligible for a density bonus, reduction in parking, and incentives allowing for relief from development standards. The applicant has requested to utilize the provisions of City and State Density Bonus laws as follows:

#### **Density**

The subject property is zoned C2-1VL-O, which permits residential density at a ratio of one dwelling unit per 400 square feet of lot area. The subject property has a lot area of 19,338 square feet. For purposes of calculating density, one-half the area of the adjacent alley (approximately 1,837 square feet) is added to the lot area, for a total of 21,175 square feet. As such, the permitted base density on the project site is 53 dwelling units<sup>1</sup>. In exchange for reserving a portion of dwelling units for affordable housing, the applicant is entitled to a maximum 35 percent density bonus by-right. The applicant is seeking an additional 10 percent density bonus (for a total of a 45 percent density bonus) through a Conditional Use to achieve the allowance for the proposed 77 dwelling units to be built on the site.

Pursuant to the LAMC and California Government Code Section 65915, a Housing Development Project that sets aside a certain percentage of units as affordable, either in rental or for-sale units, shall be granted a corresponding density bonus, up to a maximum of 35 percent. While these provisions are limited to 35 percent, Government Code Section 65915(f) states that "the amount of density bonus to which an applicant is entitled shall vary according to the amount by which the percentage of affordable housing units exceeds the percentage established." As such, in instances where a project is seeking a density bonus increase that is more than 35 percent, the amount of required units that are set aside as affordable shall vary depending on the requested amount of density bonus. Therefore, it is appropriate that any project that requests a density bonus increase beyond 35 percent would extend the existing set-aside charts located in Section 12.22 A.25 of the LAMC. Section 12.24 U.26 of the LAMC, which implements this provision of State law, states that a project may be granted a Conditional Use Permit for additional density increases beyond the 35 percent maximum by providing additional affordable housing units. Consistent with this Section, **Table 1** below illustrates how the maximum allowable Density Bonus increases for every unit set aside for Very Low Income Households (2.5 percent density increase for every additional one [1] percent of Very Low Income units provided), based on the base density and the chart prescribed in LAMC Section 12.22 A.25.

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<sup>1</sup> Assembly Bill 2501 clarifies that density calculations that result in a fractional number are to be rounded up to the next whole number. This applies to base density, number of bonus units, and number of affordable units required to be eligible for the density bonus.

**Table 1: Density Bonus Percentages**

<b>Very Low Income Units (Percentage of Base Density)</b>	<b>Maximum Density Bonus Permitted (Based on Base Density)</b>
5 %*	20 %*
6 %*	22.5 %*
7 %*	25 %*
8 %*	27.5 %*
9 %*	30 %*
10 %*	32.5 %*
11%*	35%*
12%	37.5%
13%	40%
14%	42.5%
15%	45%

\*Existing set-aside chart as listed in Section 12.22 A.25 of the LAMC.

For the subject property, a 35 percent by-right density bonus would allow for 72 dwellings units (equal to an increase of 19 units beyond the 53 dwelling units of base density) to be constructed on the project site. The applicant is seeking an additional 10 percent density bonus (for a total of a 45 percent density bonus from the base density) through a Conditional Use to allow for a total of 77 dwelling units, representing an increase of 24 units beyond what would otherwise be permitted through the by-right 35 percent density bonus. In order to obtain the requested 45 percent density bonus, as shown in **Table 1**, the proposed project must set aside at least 15 percent of the base density, equal to eight (8) affordable units. The proposed project will provide 8 units for Extremely Low Income households in exchange for the requested Density Bonus. As such, the Density Bonus request results in a total of 72 units and the Conditional Use request results in an additional 24 units for a total of 77 dwelling units, including 8 affordable units.

### Automobile Parking

State Density Bonus law allows for a reduction in the required amount of residential vehicle parking for eligible housing development projects with affordable units. However, Assembly Bill (AB) 2097 (2021-2022) specifies that jurisdictions may not impose any minimum vehicle parking requirements for certain development projects in certain areas, based on proximity to public transit. The project herein qualifies for vehicle parking reductions under AB 2097 and is thus not subject to any minimum vehicle parking requirements; nonetheless, the applicant proposes to voluntarily provide up to 38 vehicle parking spaces.

### Incentives

Pursuant to the LAMC and Government Code Section 65915, the applicant is entitled to three Incentives, in exchange for reserving at least 15 percent of the base density for affordable households. The proposed project will set aside 8 units, equal to 15 percent of the base number of units, for affordable households. Accordingly, the applicant has requested three (3) Off-Menu Incentives:

- 1. Floor Area Increase (Off-Menu)** – The subject property is zoned C2-1VL-O, which limits the FAR of the property to 1.5 to 1. The project proposes a total of 90,066 square feet of floor area, equating to a total floor area ratio (FAR) of 4.66 to 1. Accordingly, the applicant is requesting an Off-menu Incentive for an increase in FAR to a maximum of 4.66 to 1 in lieu of the 1.5 to 1 FAR otherwise permitted.

2. **Open Space (Off-Menu)** – The proposed building’s residential units will comprise 10 studios, 35 one-bedrooms, 27 two-bedrooms, and 5 three-bedroom units, which would require a total of 8,750 Square feet of open space per LAMC. Pursuant to LAMC Section 12.21 G., the applicant is requesting an Off-Menu incentive to allow a 75% open space reduction to 2,188 square feet, in lieu of from 8,750 square feet required. As such, the project will provide a total of 2,188 square feet of open space that will be comprised of a podium courtyard, sky deck, business lounge, fitness area, and an aqua lounge.
3. **Height Increase (Off-Menu)** – The subject property is zoned C2-1VL-O, with a Height District 1VL limiting the maximum building height to 45 feet, 3 stories. Pursuant to LAMC Section 12.22 A.25(g)(2), the project is requesting an Off-Menu Incentive to permit a maximum building height of 100 feet, in lieu of the otherwise permitted 45 feet.

#### Waiver of Development Standards

Per California Government Code Section 65915(1) and Section 12.22 A.25(g) of the LAMC, a Housing Development Project may also request other “waiver(s) or reduction(s) of development standards that will have the effect of physically precluding the construction of a development meeting the [affordable set-aside percentage] criteria...at the densities or with the concessions or incentives permitted under [State Density Bonus Law]”. In addition to the Off-Menu Incentives, the proposed project has requested two (2) Waivers of Development Standards, as follows:

1. **Yard/Setback**– Pursuant to LAMC Section 12.11 C.3, for a building more than three stories in height, one foot shall be added to the depth of such rear yard for each additional story above the third story, but such rear yard need not exceed 20 feet. The proposed building is 8 stories in height and is therefore required to maintain a rear yard setback of 20 feet. As such, the applicant is requesting a Waiver of Development Standards to permit a westerly rear yard setback of zero (0) feet in lieu of the otherwise required 20-foot rear yard setback.
2. **Waiver of Loading Space Requirements** – Pursuant to LAMC Section 12.21 C.6, the commercial retail portion of the building is required to provide a loading space that shall have a minimum area of 600 square feet where the gross floor area of all buildings on the lot exceeds 50,000 square feet, but not more than 100,000 square feet. The mixed-use development proposes a total floor of 90,066 square feet of floor area and therefore requires a 600 square-foot loading space. As such, the applicant is seeking a Waiver of Development Standards to waive the loading space requirement.

#### Housing Replacement

Pursuant to LAMC Section 12.22 A.25, an eligible Housing Development shall be eligible for Density Bonus Incentives if it meets any applicable replacement requirements of California Government Code Section 65915(c)(3) (California State Density Bonus Law).

Assembly Bill 2222 (AB 2222) amended the State Density Bonus Law to require applicants of density bonus projects filed as of January 1, 2015, to demonstrate compliance with the housing replacement provisions which require replacement of rental dwelling units that either exist at the time of application of a Density Bonus project or have been vacated or demolished in the five-year period preceding the application of the project. This applies to all pre-existing units that have been subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of lower or very low income; subject to any other form of rent or price control; or occupied by Low or Very Low Income Households.

On September 28, 2016, Governor Brown signed Assembly Bill 2556 (AB 2556) which further amended the State Density Bonus Law. The amendments took effect on January 1, 2017. AB

2556 clarifies the implementation of the required replacement of affordable units in Density Bonus projects, first introduced by AB 2222. AB 2556 further defines "equivalent size" to mean that as a whole, the new units must contain at least the same total number of bedrooms as the units being replaced.

In addition to the requirements of California State Density Bonus Law, on October 9, 2019, the Governor signed into law the Housing Crisis Act of 2019 (SB 330). SB 330 creates new state laws regarding the production, preservation and planning for housing, and establishes a statewide housing emergency until January 1, 2015. During the duration of the statewide housing emergency, SB 330, among other things, creates new housing replacement requirements for Housing Development Projects by prohibiting the approval of any proposed housing development project on a site that will require the demolition of existing residential dwelling units or occupied or vacant "Protected Units" unless the proposed housing development project replaces those units.

The Housing Crisis Act of 2019, as amended by SB 8 (California Government Code Section 66300 et seq.), prohibits the approval of any proposed housing development project on a site that will require demolition of existing dwelling units or occupied or vacant "Protected Units" unless the project replaces those units. The project shall provide at least as many residential dwelling units as the greatest number of residential dwelling units that existed on the property within the past five years. Additionally, the project must also replace all existing or demolished "Protected Units." Pursuant to the Housing Crisis Act of 2019 (SB 8) Replacement Unit Determination, dated April 20, 2023, the Los Angeles Housing Department determined that no residential units are subject to replacement as affordable "protected units". The provisions of SB 8 do not apply to commercial properties, therefore no SB 8 replacement affordable units are required.

As such, the project meets the eligibility requirement for providing replacement housing consistent with California Government Code Sections 65915(c)(3) (State Density Bonus Law) and 66300 (Housing Crisis Act of 2019).

### **PUBLIC HEARING**

A public hearing on this matter with the Hearing Officer virtually via Zoom meeting on Tuesday, January 9, 2024. Comments from the public hearing are documented in Public Hearing and Communications, Page P-1.

### **PROFESSIONAL VOLUNTEER PROGRAM**

The proposed project was reviewed by the Urban Design Studio's Professional Volunteer Program (PVP) on October 17, 2023 and PVP feedback was provided to the proposed project representative on October 18, 2023. The following includes a summary of the PVP feedback for the proposed project:

For Pedestrian First design improvement, PVP recommended the Flores Street-facing façade to consider wrapping retail storefront around corner to break the monotony due to the large expanse of blank wall and extend the narrow canopy element that wraps the corner above the storefront to the north to project more shelter for sidewalk seating. Additionally, PVP recommended the bicycle storage area to have natural light from window openings, similar to plans for the car parking space.

For the consideration of the existing residents north of the proposed project, across the alley, PVP commented the north elevation should be better designed for the view of the existing residents across the alley. If the section of northerly wall is blank due to needs for shear strength, then this function would be better accommodated on the west façade, where it's likely that a future

development of a similar scale will block it from view, or along and interior column bay of the proposed project. The southerly façade treatment on 3<sup>rd</sup> Street gives the appearance of added height due to its vertical proportions, PVP recommends the consideration of applying a similar design approach to the easterly side of the proposed project, on Flores Street by incorporating breaks between vertical window strips and including horizontal features. PVP noted balconies on west façade extend to just over 3 feet from the property line but note that while these are allowable architectural projections per the LAMC, the LAFD can potentially raise this as a side yard issue. Additionally, reducing the westerly rear setback from 20 feet to 0 feet eliminates the ability to provide substantial trees and other landscaping that would soften the building transition in scale, PVP recommends adding vines, lighting, etc., and consider extending the façade treatment on 3<sup>rd</sup> Street rather than having the façade treatment to end abruptly at the corner.

For Climate-Adapted design improvements, PVP noted the podium level courtyard being a beautiful and a positive element for the building, however to also balance consideration of natural light or ventilation for units in the rear of the building. Design improvements also recommended the indication the solar PV installation in compliance with 2022 California Energy Code on the architectural plans, if no LADBS permit application was submitted before 2023. PVP noted that solar is what the project is mainly proposing in terms of climate adaptation, although the balconies are somewhat shielded from the sun by those above.

### **ISSUES AND CONSIDERATIONS**

In response to the Urban Design Studio's Professional Volunteer Program (PVP) review on October 17, 2023, the applicant made the following revisions to the proposed project as recommended by the PVP:

- Updated the east-facing elevation on Flores Street to show the green wall feature.
- The north elevation façade is to be featured with various building materials and colors to improve the view of the existing multi-family building residents across the alley.
- The façade treatment on 3<sup>rd</sup> Street previously ended abruptly at the corner, the manufactured stone has been updated to wrap around the south west corner of the proposed project building.

### **CONCLUSION**

Based on the public hearing and information submitted to the record, staff recommends that the City Planning Commission find, based on its independent judgment, after consideration of the entire administrative record, find that the project is categorically exempt from CEQA. Planning Staff also recommends that the City Planning Commission approve the Density Bonus incentives, waivers of development standards and the Conditional Use for a 45 percent density bonus, thereby approving the project, as proposed. The proposed project will result in 77 net new housing units and will not demolish any existing housing. The approval of the density bonus and conditional use will allow the addition of eight (8) Extremely Low Income Households, 68 market rate dwelling units, one (1) market rate managers unit, and new retail uses in a neighborhood that is characterized as walkable and rich in job opportunities which aligns with the City's housing and economic development goals and objectives. The proposed project is designed to enhance the public realm and activate a prominent corner in the Wilshire Community Plan area with retail uses that enhance the pedestrian experience.

## CONDITIONS OF APPROVAL

Pursuant to Sections 12.22 A.25, and 12.24 U.26 of the Los Angeles Municipal Code, the following conditions are hereby imposed upon the use of the subject property:

### A. Development Conditions

#### Density Bonus

1. **Site Development.** Except as modified herein, the project shall be in substantial conformance with the plans, submitted by the Applicant, stamped "Exhibit A," and attached to the subject case file.
2. **Residential Density.** The project shall be limited to a maximum density of 77 dwelling units.
3. **On-Site Restricted Affordable Units.**
  - a. A minimum of 8 units, that is at least 15 percent of the base dwelling units permitted in the C2-1VL-O Zone, shall be reserved as Extremely Low Income Households, as defined by the State Density Bonus Law per Government Code Section 65915(c)(2).
  - b. **Changes in On-Site Restricted Units.** Deviations that increase the number of restricted affordable units or that change the composition of units or change parking numbers shall be consistent with LAMC Section 12.22 A.25.
4. **Housing Requirements.** Prior to issuance of a building permit, the owner shall execute a covenant to the satisfaction of the Los Angeles Housing Department (LAHD) to make at least 15 percent of the site's base density units (8 units) available to Extremely Low Income Households, for sale or rental as determined to be affordable to such Households by LAHD for a period of 55 years. In the event the applicant reduces the proposed density of the project, the number of required reserved on-site Restricted Units may be adjusted, consistent with LAMC Section 12.22 A.25, to the satisfaction of LAHD, and in consideration of the project's SB 8 Determination, dated April 20, 2023. Enforcement of the terms of said covenant shall be the responsibility of LAHD. The applicant shall present a copy of the recorded covenant to the Department of City Planning for inclusion in this file. The project shall comply with the Guidelines for the Affordable Housing Incentives Program adopted by the City Planning Commission and with any monitoring requirements established by the LAHD. Refer to the Density Bonus Legislation Background section of this determination for more information.
5. **Housing Replacement.** Prior to issuance of a building permit, the owner shall execute a covenant to the satisfaction of the Los Angeles Housing Department (LAHD), and in compliance with LAHD's April 20, 2023, SB 8 Determination Letter. Enforcement of the terms of said covenant shall be the responsibility of LAHD. The applicant will present a copy of the recorded covenant to the Department of City Planning for inclusion in this file. The project shall comply with the Guidelines for the Affordable Housing Incentives Program adopted by the City Planning Commission and with any monitoring requirements established by the LAHD. Refer to the Density Bonus Legislation Background section of this determination for more information.

On-site Restricted Affordable Units may be used to satisfy the Housing Replacement units required pursuant to SB 8 provided such units meet the income levels, to the satisfaction of LAHD.

## 6. Incentives.

- a. **Floor Area Ratio (FAR).** The project shall be permitted a maximum floor area of 4.66:1 in lieu of the otherwise permitted FAR of 1.5:1.
- b. **Open Space.** The project shall be permitted a maximum 75 percent reduction in required open space.
- c. **Height.** The project shall be permitted a maximum building height of 100 feet of in lieu of the otherwise permitted 45 feet.

## 7. Waivers of Development Standards.

- a. **Yards/Setbacks.** The project shall be permitted a westerly rear yard setback of zero (0) feet in lieu of the otherwise required 20 feet.
- b. **Loading Space.** The project shall be permitted a waiver of the loading space requirement otherwise required pursuant to LAMC Section 12.21 C.6.

## 8. Parking.

- a. **Residential Parking.** Automobile parking shall be provided consistent with the LAMC and/or Assembly Bill (AB) 2097. In the event that the number of On-Site Restricted Affordable Units should increase or the composition of such units should change, then no modification of this determination shall be necessary and the number of vehicle parking spaces shall be re-calculated consistent with LAMC Section 12.22 A.25.
- b. **Unbundling.** Parking shall be provided pursuant to AB 1317, as verified by LAHD.
- c. **Bicycle Parking.** Bicycle parking shall be provided consistent with LAMC Section 12.21 A.16.

9. **Street Trees:** Street trees shall be provided to the satisfaction of the Urban Forestry Division. Street trees may be used to satisfy on-site tree requirements pursuant to LAMC Article Section 12.21 G.3 (Chapter 1, Open Space Requirement for Six or More Residential Units). Per Exhibit A and 12.21.G.3, a total of 20 street trees shall be provided or maintained to the satisfaction of the Urban Forestry Division.

## 10. Landscaping:

- a. All open areas not used for buildings, driveways, parking areas, or walkways shall be attractively landscaped and maintained in accordance with a landscape plan and an automatic irrigation plan, prepared by a licensed Landscape Architect and to the satisfaction of the Department of City Planning.
- b. All planters containing trees shall have a minimum depth of 48 inches.
- c. Planting of required trees within the public right-of-way shall obtain approval from the Urban Forestry Division prior to obtaining clearance from the Department of



City Planning. In the event that a required tree cannot be planted within the public right-of-way, those trees shall be planted on-site.

**11. Sustainability.**

- a. **Solar.** The project shall comply with the Los Angeles Municipal Green Building Code, Section 99.04.211 and 99.05.211, to the satisfaction of the Department of Building and Safety.
  - b. **Electric Vehicle Parking.** All electric vehicle charging spaces (EV Spaces) and electric vehicle charging stations (EVCS) shall comply with the regulations outlined in Sections 99.04.106 and 99.05.106 of Article 9, Chapter IX of the LAMC.
- 12. Circulation.** The applicant shall submit a parking and driveway plan to the Los Angeles Department of Transportation (LADOT) for approval.
- 13. Materials.** A variety of high-quality exterior building materials, consistent with Exhibit A, shall be used. The variety of materials used shall include at least the following: vinyl windows, exterior plaster, and glass railing with high quality stainless steel as shown in the Exhibit A – Plans. Substitutes of an equal quality shall be permitted, to the satisfaction of the Department of City Planning.
- 14. Mechanical Equipment.** All mechanical equipment on the roof shall be screened from view by any abutting properties. The transformer, if located in any street-facing yard, shall be screened with landscaping consistent with LADWP access requirements.
- 15. Lighting.** Outdoor lighting shall be designed and installed with shielding, such that the light source does not illuminate adjacent residential properties or the public right-of-way, nor the above night skies.
- 16. Graffiti.** All graffiti on the site shall be removed or painted over to match the color of the surface to which it is applied within 24 hours of its occurrence.
- 17. Trash.** Trash receptacles shall be stored within a fully enclosed portion of the building at all times. Trash/recycling containers shall be locked when not in use and shall not be placed in or block access to required parking.

**B. Administrative Conditions**

- 19. Final Plans.** Prior to the issuance of any building permits for the project by the Department of Building and Safety, the applicant shall submit all final construction plans that are awaiting issuance of a building permit by the Department of Building and Safety for final review and approval by the Department of City Planning. All plans that are awaiting issuance of a building permit by the Department of Building and Safety shall be stamped by Department of City Planning staff “Final Plans”. A copy of the Final Plans, supplied by the applicant, shall be retained in the subject case file.
- 20. Notations on Plans.** Plans submitted to the Department of Building and Safety, for the purpose of processing a building permit application shall include all of the Conditions of Approval attached herein as a cover sheet and shall include any modifications or notations required herein.
- 21. Building Plans.** A copy of the first page of this grant and all Conditions and/or any subsequent appeal of this grant and its resultant Conditions and/or letters of clarification

shall be printed on the building plans submitted to the Development Services Center and the Department of Building and Safety for purposes of having a building permit issued.

- 22. Corrective Conditions.** The authorized use shall be conducted at all times with due regard for the character of the surrounding district, and the right is reserved to the City Planning Commission, or the Director pursuant to Section 12.27.1 of the Municipal Code, to impose additional corrective conditions, if, in the Commission's or Director's opinion, such conditions are proven necessary for the protection of persons in the neighborhood or occupants of adjacent property.
- 23. Approvals, Verification and Submittals.** Copies of any approvals, guarantees or verification of consultations, reviews or approval, plans, etc., as may be required by the subject conditions, shall be provided to the Department of City Planning for placement in the subject file.
- 24. Code Compliance.** All area, height and use regulations of the zone classification of the subject property shall be complied with, except wherein these conditions explicitly allow otherwise.
- 25. Department of Building and Safety.** The granting of this determination by the Director of Planning does not in any way indicate full compliance with applicable provisions of the Los Angeles Municipal Code Chapter IX (Building Code). Any corrections and/or modifications to plans made subsequent to this determination by a Department of Building and Safety Plan Check Engineer that affect any part of the exterior design or appearance of the project as approved by the Director, and which are deemed necessary by the Department of Building and Safety for Building Code compliance, shall require a referral of the revised plans back to the Department of City Planning for additional review and sign-off prior to the issuance of any permit in connection with those plans.
- 26. Department of Water and Power.** Satisfactory arrangements shall be made with the Los Angeles Department of Water and Power (LADWP) for compliance with LADWP's Rules Governing Water and Electric Service. Any corrections and/or modifications to plans made subsequent to this determination in order to accommodate changes to the project due to the under-grounding of utility lines, that are outside of substantial compliance or that affect any part of the exterior design or appearance of the project as approved by the Director, shall require a referral of the revised plans back to the Department of City Planning for additional review and sign-off prior to the issuance of any permit in connection with those plans.
- 27. Covenant.** Prior to the issuance of any permits relative to this matter, an agreement concerning all the information contained in these conditions shall be recorded in the County Recorder's Office. The agreement shall run with the land and shall be binding on any subsequent property owners, heirs, or assign. The agreement must be submitted to the Department of City Planning for approval before being recorded. After recordation, a copy bearing the Recorder's number and date shall be provided to the Department of City Planning for attachment to the file.
- 28. Definition.** Any agencies, public officials or legislation referenced in these conditions shall mean those agencies, public offices, legislation or their successors, designees or amendment to any legislation.
- 29. Enforcement.** Compliance with these conditions and the intent of these conditions shall be to the satisfaction of the Department of City Planning and any designated agency, or

the agency's successor and in accordance with any stated laws or regulations, or any amendments thereto.

**30. Expedited Processing Section.** Prior to the clearance of any conditions, the applicant shall show proof that all fees have been paid to the Department of City Planning, Expedited Processing Section.

**31. Indemnification and Reimbursement of Litigation Costs.**

Applicant shall do all of the following:

- a. Defend, indemnify and hold harmless the City from any and all actions against the City relating to or arising out of, in whole or in part, the City's processing and approval of this entitlement, including but not limited to, an action to attack, challenge, set aside, void, or otherwise modify or annul the approval of the entitlement, the environmental review of the entitlement, or the approval of subsequent permit decisions, or to claim personal property damage, including from inverse condemnation or any other constitutional claim.
- b. Reimburse the City for any and all costs incurred in defense of an action related to or arising out of, in whole or in part, the City's processing and approval of the entitlement, including but not limited to payment of all court costs and attorney's fees, costs of any judgments or awards against the City (including an award of attorney's fees), damages, and/or settlement costs.
- c. Submit an initial deposit for the City's litigation costs to the City within 10 days' notice of the City tendering defense to the applicant and requesting a deposit. The initial deposit shall be in an amount set by the City Attorney's Office, in its sole discretion, based on the nature and scope of action, but in no event shall the initial deposit be less than \$50,000. The City's failure to notice or collect the deposit does not relieve the applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (b).
- d. Submit supplemental deposits upon notice by the City. Supplemental deposits may be required in an increased amount from the initial deposit if found necessary by the City to protect the City's interests. The City's failure to notice or collect the deposit does not relieve the applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (b).
- e. If the City determines it necessary to protect the City's interest, execute an indemnity and reimbursement agreement with the City under terms consistent with the requirements of this condition.

The City shall notify the applicant within a reasonable period of time of its receipt of any action and the City shall cooperate in the defense. If the City fails to notify the applicant of any claim, action, or proceeding in a reasonable time, or if the City fails to reasonably cooperate in the defense, the applicant shall not thereafter be responsible to defend, indemnify or hold harmless the City.

The City shall have the sole right to choose its counsel, including the City Attorney's office or outside counsel. At its sole discretion, the City may participate at its own expense in the defense of any action, but such participation shall not relieve the applicant of any obligation imposed by this condition. In the event the applicant fails to comply with this condition, in whole or in part, the City may withdraw its defense of the action, void its

approval of the entitlement, or take any other action. The City retains the right to make all decisions with respect to its representations in any legal proceeding, including its inherent right to abandon or settle litigation.

For purposes of this condition, the following definitions apply:

“City” shall be defined to include the City, its agents, officers, boards, commissions, committees, employees, and volunteers.

“Action” shall be defined to include suits, proceedings (including those held under alternative dispute resolution procedures), claims, or lawsuits. Actions include actions, as defined herein, alleging failure to comply with any federal, state or local law.

Nothing in the definitions included in this paragraph are intended to limit the rights of the City or the obligations of the applicant otherwise created by this condition.

## FINDINGS

### Density Bonus/Affordable Housing Incentives Compliance Findings

1. Pursuant to Section 12.22 A.25(g)(2)(i)(c) of the LAMC and Section 65915(e) of the California Government Code, the Director of Planning shall approve a density bonus and requested incentive(s) unless they find that:

***a. The Incentive does not result in identifiable and actual cost reductions to provide for affordable housing costs as defined in California Health and Safety Code Section 50052.5 or Section 50053 for rents for the affordable units.***

The record does not contain substantial evidence that would allow the Director to make a finding that the requested incentives do not result in identifiable and actual cost reductions to provide for affordable housing costs per State Law. The California Health & Safety Code Sections 50052.5 and 50053 define formulas for calculating affordable housing costs for Very Low, Low, and Moderate income households. Section 50052.5 addresses owner-occupied housing and Section 50053 addresses rental households. Affordable housing costs are a calculation of residential rent or ownership pricing not to exceed 25 percent gross income based on area median income thresholds dependent on affordability levels.

The proposed project substantially complies with the applicable regulations, standards, and provisions of the State Density Bonus Program. The proposed project includes 15 percent of the project's base density as Extremely Low Income restricted affordable units, for a total 8 residential units. No substantial evidence has been entered into the record indicating that any of the requested Off-Menu Incentives do not result in identifiable and actual cost reductions to provide for the project's affordable housing costs (as defined in California Health and Safety Code Sections 50052.5 or 50053) and/or accommodate the restricted Extremely Low Income unit rents.

In exchange for providing at least 15 percent of the base density for Extremely Low Income Households, the applicant is entitled to three (3) incentives under both Government Code Section 65915 and the LAMC. The request for FAR increase, height and story increase, and open space reduction qualify as requested Incentives. The remaining requests to allow for reduction in rear yard setbacks and waived loading space requirements are Waivers of Development.

#### Open Space

The proposed building's residential units will comprise of 10 studios, 35 one-bedroom units, 27 two-bedroom units, and five (5) three-bedroom units. Based on the number and typology of residential units proposed, the project would be required to provide of 8,750 square feet of open space. The project proposes to provide approximately 2,188 square feet of open space that can be counted towards zoning requirements. While the project is requesting an Off-Menu Incentive for up to a maximum 75 percent reduction in the required amount of open space, the project provides an additional 5,328 square feet of non-credited open space. However, due to restrictions under the LAMC on the percentage of open space that may be outdoors, indoors, private, and above ground level, only 2,188 square feet of open space may be counted towards the requirement pursuant to LAMC 12.21.G.2.a-b, while the remaining 5,328 square feet is not-credited. This non-credited open space is in the form of private balconies, podium courtyard, business lounge, aqua lounge, and fitness area.

The requested open space incentive is to permit exceptions to zoning requirements that result in building design or construction efficiencies that facilitate the creation of affordable housing. The requested off-menu incentive allows the developer to reduce open space requirements so that affordable housing units reserved for Very Low Income Households can be constructed and the overall space dedicated to residential uses is increased. The incentive further supports the applicant's decision to reserve eight (8) dwelling units for Extremely Low Income Households, and facilitates the creation of affordable housing units.

#### Floor Area Ratio

The subject property is zoned C2-1VL-O. The C2 Zone limits the FAR of the property to 1.5 to 1. Thus, pursuant to LAMC Section 12.22 A.25 the applicant is requesting an Off-Menu incentive to allow a FAR increase from 1.5:1 to 4.66:1 to allow approximately 90,066 square feet of floor area.

The requested increase in FAR will allow for the construction of affordable units in addition to larger-sized dwelling units and retail space at the ground level. Granting of the incentive would result in a building design and construction efficiencies that provide for affordable housing costs; it enables the developer to expand the building envelope so that additional affordable units can be constructed, and the overall space dedicated to residential uses is increased. The increased building envelope also ensures that all dwelling units are of a habitable size while providing a variety of unit types. This Incentive supports the applicant's decision to set aside a minimum 8 dwelling units for Extremely Low Income Households for 55 years.

#### Height and Story Increase

The subject property is zoned C2-1VL-O. The 1VL Zone height requirements limit height to 45 feet and three (3) stories. Thus, pursuant to LAMC Section 12.22 A.25, the applicant is requesting an Off-Menu Incentive to allow a maximum height of 100 feet and eight (8) stories, in lieu of the otherwise required 45 feet and three stories.

The requested incentive to allow the increase of height and story requirements will allow for the construction of affordable units and retail space within a zone that allows for such uses. Granting of the incentive would result in a building design and construction efficiencies that provide for affordable housing costs; it enables the developer to be able to utilize the sites full potential so that additional affordable units can be constructed, and the overall space dedicated to residential uses is increased through the increased height from 45 maximum feet and three (3) stories to 100 feet and eight (8) stories in height. The increased building envelope also ensures that all dwelling units are of a habitable size while providing a variety of unit types. This Incentive supports the applicant's decision to set aside a minimum 8 dwelling units for Extremely Low Income Households for 55 years.

***b. The waiver[s] or reduction[s] of development standards will not have the effect of physically precluding the construction of a development meeting the [affordable set-aside percentage] criteria of subdivision (b) at the densities or with the concessions or incentives permitted under [State Density Bonus Law]" (Government Code Section 65915(e)(1).***

A project that provides at least 5 percent of its base density for Extremely Low Income Households may request other "waiver[s] or reduction[s] of development standards that will have the effect of physically precluding the construction of a development meeting the [affordable set-aside percentage] criteria of subdivision (b) at the densities or with the concessions or incentives permitted under [State Density Bonus Law]" (Government Code Section 65915(e)(1)).

### Westerly Rear Yard Setback

Pursuant to LAMC Section 12.11 C.3 the proposed project is required to provide 20-foot rear yard setbacks for the residential levels. The rear setback requirement for the commercial portion of the project is zero (0) feet. The proposed project has requested to provide a zero (0) feet westerly rear yard setback in lieu of the 20-foot required for the residential units provided. The additional 20 feet of building depth allow the proposed project to accommodate the requested density of 77 dwelling units with 8 units set aside for Extremely Low Income Households and the requested floor area. Adherence to the 20-foot side yard setback would physically preclude the construction of the project as proposed with the floor area granted in the incentives. Thus, waiver supports the applicant's decision to provide 8 units as affordable housing units reserved for Extremely Low Income Households.

### Waived Loading Space

Pursuant to LAMC Section 12.21 C.6 the proposed project is required to provide an 600 square foot loading space but has requested to waive the imposed loading space requirements. The proposed project will provide 11,026 square feet of commercial ground floor space which does not anticipate requiring a loading space as the movement of goods can be handled through other access points in the proposed building. Additionally, adherence to the 600 square foot loading space requirement would physically preclude the construction of the project, as proposed, with the floor area granted in the incentives and affect the proposed quantity of affordable households. Thus, the Waiver of Development Standard to waive the loading space requirement supports the applicant's decision to provide 8 units as affordable housing units reserved for Extremely Low Income Households.

***c. The Incentive(s) and/or Waivers will have a Specific Adverse Impact upon public health and safety or the physical environment or any real property that is listed in the California Register of Historical Resources and for which there is no feasible method to satisfactorily mitigate or avoid the Specific Adverse Impact without rendering the development unaffordable to Very Low, Low and Moderate Income households. Inconsistency with the zoning ordinance or general plan land use designation shall not constitute a specific adverse impact upon the public health or safety.***

There is no evidence that the proposed incentives and waivers of development will have a specific adverse impact upon public health and safety or the physical environment, or any real property that is listed in the California Register of Historical Resources. A "specific adverse impact" is defined as "a significant, quantifiable, direct and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete" (LAMC Section 12.22 A.25(b)). The proposed project does not involve a contributing structure in a designated Historic Preservation Overlay Zone or on the City of Los Angeles list of Historical-Cultural Monuments. Accordingly, the proposed project will not have a significant impact on any on-site resource or any resource in the surrounding area. The property is not located on a substandard street in a Hillside area or in a Very High Fire Hazard Severity Zone, accordingly, the proposed project will not have a specific adverse impact upon public health and safety or the physical environment. The proposed project is located in a Methane Zone and Liquefaction Zone and is required to comply with all other pertinent regulations including those governing construction, use, and maintenance, and will not create any significant direct impacts on public health and safety. Therefore, there is no substantial evidence that the proposed project, and thus the requested incentives and waivers of development, will have a specific adverse impact on the physical environment, on public health and safety or the physical environment, or on any Historical Resource.

***d. The Incentive(s) and/or Waivers is/are contrary to State/federal law.***

There is no substantial evidence in the record indicating that the requested Incentives and Waivers of Development are contrary to any State or federal laws.

**Conditional Use Findings**

**2. That the project will enhance the built environment in the surrounding neighborhood or will perform a function or provide a service that is essential or beneficial to the community, city or region.**

The subject property comprises four lots for a total of approximately 19,338 square feet of lot area without ½ alley width and approximately 21,175 square feet of lot area with ½ alley width, and is located in the Wilshire neighborhood on the west side of Flores Street and north of 3<sup>rd</sup> Street. The project site is currently vacant. The site is a 0.3 mile walk from the Metro 16 bus and Metro 105 bus located at West 3<sup>rd</sup> Street and North La Cienega Boulevard. The site is in close proximity to the Beverly Grove, the Original Farmers Market, and commercial and retail amenities such as grocery stores (for example Target).

The project involves the construction, use, and maintenance of a new eight-story, 100-foot residential building consisting of 77 dwelling units, of which 8 will be set aside for Extremely Low Income households while the remaining 69 units will be rented at market rate. The dwelling units will comprise of a mix of studios, one-, and two- bedroom units. The project will provide 38 automobile parking spaces in levels two and three.

The previously existing commercial building did not utilize the site's full potential in providing much needed housing. The project will perform an essential function by providing 77 net-new dwelling units to the Wilshire Community Plan Area, including increasing the affordable housing stock by eight net new units.

The additional 10 percent density bonus (beyond the 35 percent permitted through a by-right density bonus) approved herein results in an additional 5 (five) units, for a total of 77 units. In exchange, the project will set aside at least 15 percent (8 units) of the base density for Extremely Low Income Households for a minimum of 55 years.

Therefore, the proposed 77-unit development, including the 8 units set aside for Extremely Low Income Households, will provide new market rate and affordable housing, thus performing a function that is essential and beneficial to the city and the region.

**3. That the project's location, size, height, operations and other significant features will be compatible with and will not adversely affect or further degrade adjacent properties, the surrounding neighborhood or the public health, welfare, and safety.**

The proposed project consists of the construction of a new eight-story 77 dwelling unit mixed-use development. The project site is currently vacant.

The proposed project site is located within the Wilshire Community Plan, which is one of 35 Community Plans which together form the land use element of the General Plan. The Community Plan designates the site for Neighborhood Office Commercial land uses. The proposed project site is zoned C2-1VL-O and is thus consistent with the existing land use designation. The C2-1VL-O zone limits the project's density to one (1) dwelling unit per 400 square feet of lot area. Additionally, the Floor Area Ratio (Ratio) permitted in the C2 Zone is 1.5 to 1. The surrounding area consists of multi-story medium-density residential housing developments and commercial uses. Properties to the north, across the alley, are zoned R3-



1-O with a land use designation of Medium Residential and developed with multi-family residential buildings that vary from two- to four-stories in height. The property to the west, abutting the subject property, is zoned C2-1VL-O with a land use designation of Neighborhood Office Commercial and developed with an auto shop. Properties further west are developed with one to four-story commercial buildings, and a 11-story commercial building approximately 0.2 miles away from the proposed project. Properties to the south, across West 3<sup>rd</sup> Street, are zoned C2-1LD-O with a land use designation of Neighborhood Office Commercial and developed with one- and two-story commercial use structures. Properties to the west, across Flores Street, are zoned C2-1VL-O with a land use designation of Neighborhood Office Commercial and developed with multiple one- to two-story commercial use buildings.

Construction of the 77-unit housing mixed-use development will serve to benefit the neighborhood rather than degrade it. The façades are well-articulated and feature ground floor walk-up units which provide a transitional element to the smaller scale single family and duplexes to the north. The commercial ground floor areas engage pedestrians along 3<sup>rd</sup> Street. Therefore, the project is compatible with the surrounding neighborhood and will not adversely affect nor degrade adjacent properties, surrounding neighborhood, or the public health, safety, or welfare.

With the exception of the requests herein, the proposed project is otherwise entirely consistent with the requirements of the underlying zone. The project's significant features, including the proposed building's use, density, height, and FAR, are permitted by the underlying zone and the provisions of Density Bonus law. The project has been thoughtfully designed to include fully screened on-site parking the second and third levels.

Given the proposed project's location within the Wilshire Community Plan area, along with the existing development in the immediate vicinity of the subject property and its proximity to commercial thoroughfares, the project's location, size, height, operations, and other significant features will be compatible with and will not adversely affect adjacent properties, the surrounding neighborhood, or the public health, welfare, and safety.

**4. That the project is in substantial conformance with the purposes, intent and provisions of the General Plan, applicable community plan, and any applicable specific plan.**

The Los Angeles General Plan sets forth goals, objectives, and policies that guide both Citywide and community specific land use policies. The General Plan is comprised of a range of State-mandated elements, including, but not limited to, Land Use, Housing, Transportation/Mobility, Noise, and Safety. Each of these Elements establishes policies that provide for the regulatory environment in managing the City and for addressing environmental concerns and problems. The majority of the policies derived from these Elements are in the form of Code Requirements of the Los Angeles Municipal Code. The City's Land Use Element is divided into 35 community plans that establish parameters for land use decisions within those sub-areas of the City. While the General Plan sets out a long-range vision and guide to future development, the 35 Community Plans provide the specific, neighborhood-level detail, relevant policies, and implementation strategies necessary to achieve the General Plan objectives. The proposed project site is located in the Wilshire Community Plan area and is not subjected to any applicable specific plans.

The proposed project site is located within the **Wilshire Community Plan** (adopted in 2001), which is one of 35 Community Plans which together form the land use element of the General Plan. The Community Plan designates the site for Neighborhood Office Commercial land uses with corresponding zones of C1, C1.5, C2, C4, P, CR, RAS3, and RAS4. The proposed project site is zoned C2-1VL-O and is thus consistent with the General Plan's land use designation for the site.

The proposed project is consistent with the following goals, objectives and policies of the Wilshire Community Plan:

- Objective 1-1: Provide for the preservation of existing quality housing, and for the development of new housing to meet the diverse economic and physical needs of the existing residents and expected new residents in the Wilshire Community Plan Area to the year 2010.
- Objective 1-4: Provide affordable housing and increased accessibility to more population segments, especially students, the handicapped and senior citizens.

The proposed project protects the surrounding residential neighborhoods from encroachment by higher density residential uses by allowing for the development of a 77-unit (including 8 units reserved for Extremely Low Income Households), mixed-use residential building within a commercially zoned property in proximity to multi-story residential buildings and other commercial uses. The proposed project increases the housing stock and satisfies the needs and desires of all economic segments of the community by maximizing the opportunity for individual housing choice with the provision of affordable units.

The **Framework Element** for the General Plan (Framework Element) was adopted by the City of Los Angeles in December 1996 and re-adopted in August 2001. The Framework Element provides guidance regarding policy issues for the entire City of Los Angeles, including the proposed project site. The Framework Element also sets forth a Citywide comprehensive long-range growth strategy and defines Citywide policies regarding such issues as land use, housing, urban form, neighborhood design, open space, economic development, transportation, infrastructure, and public services. The Framework Element includes the following goals, objectives and policies relevant to the instant request:

Goal 3A: A physically balanced distribution of land uses that contributes towards and facilitates the City's long-term fiscal and economic viability, revitalization of economically depressed areas, conservation of existing residential neighborhoods, equitable distribution of public resources, conservation of natural resources, provision of adequate infrastructure and public services, reduction of traffic congestion and improvement of air quality, enhancement of recreation and open space opportunities, assurance of environmental justice and a healthful living environment, and achievement of the vision for a more liveable city.

Objective 3.1: Accommodate a diversity of uses that support the needs of the City's existing and future residents, businesses, and visitors.

Policy 3.1.4: Accommodate new development in accordance with land use and density provisions of the General Plan Framework Long-Range Land Use Diagram.

Objective 3.2: Provide for the spatial distribution of development that promotes an improved quality of life by facilitating a reduction of vehicular trips, vehicle miles traveled, and air pollution.

Policy 3.2.1: Provide a pattern of development consisting of distinct districts, centers, boulevards, and neighborhoods that are differentiated by their functional role, scale, and character. This shall be accomplished by considering factors such as the existing concentrations of use, community-

oriented activity centers that currently or potentially service adjacent neighborhoods, and existing or potential public transit corridors and stations.

Policy 3.2.2: Establish, through the Framework Long-Range Land Use Diagram, community plans, and other implementing tools, patterns and types of development that improve the integration of housing with commercial uses and the integration of public services and various densities of residential development within neighborhoods at appropriate locations.

Objective 3.4: Encourage new multi-family residential, retail commercial, and office development in the City's neighborhood districts, community, regional, and downtown centers as well as along primary transit corridors/boulevards, while at the same time conserving existing neighborhoods and related districts.

Policy 3.4.1: Conserve existing stable residential neighborhoods and lower - intensity commercial districts and encourage the majority of new commercial and mixed-use (integrated commercial and residential) development to be located (a) in a network of neighborhood districts, community, regional, and downtown centers, (b) in proximity to rail and bus transit stations and corridors, and (c) along the City's major boulevards, referred to as districts, centers, and mixed-use boulevards, in accordance with the Framework Long-Range Land Use Diagram.

The proposed project will result in the development of a mixed-use residential building that will provide 77 dwelling units, including 8 units reserved for Extremely Low Income Households, thereby contributing toward and facilitating the City's long-term housing demands and vision for a more livable city.

Additionally, the project site is located within close proximity to multiple transit options including the following bus lines on West 3<sup>rd</sup> Street and North La Cienega Boulevard: Metro Bus Line 16 and Metro Bus Lines 105 located within 0.3 miles from the project. The numerous transit options in the area will allow future residents to reduce their single-occupancy vehicular trips.

The proposed project site is currently vacant. The development of the site will enable the City to improve the built environment with market-rate and affordable housing units with 11,026 square feet of ground-floor commercial uses. Therefore, the proposed 77-unit mixed-use building is consistent with the Distribution of Land Use goals, objectives and policies of the General Plan Framework Element.

The proposed mixed-use residential development increases the current housing stock with a residential building that will provide 77 units as well as ground floor commercial uses that will help supply the diverse economic and physical needs of residents in the Wilshire Community Plan area. The proposed project will also enhance the appearance of the surrounding neighborhood as it implements good urban design practices and aligns with the Citywide Design Guidelines such as landscaping that is visible from the street, commercial ground floor uses and street trees. The proposed project's architecture will enhance the visual appearance of the community and it has been designed and conditioned to enhance the public realm with conditions regulating landscaping and street trees and provide a safe environment for pedestrians by enabling increased eyes on the street through the commercial uses proposed along the frontage of the property. The driveway along the alley consists a width of 19 feet. Therefore, the project is consistent with the Wilshire Community Plan.

The **Housing Element** of the General Plan (2021-2019) is the City's blueprint for meeting housing and growth challenges. It identifies the City's housing conditions and needs, reiterates goals, objectives, and policies that are the foundation of the City's housing and growth strategy, and provides the array of programs the City has committed to implement to create sustainable, mixed-income neighborhoods across the City. The Housing Element includes the following objectives and policies relevant to the instant request:

Goal 1: A City where housing production results in an ample supply of housing to create more equitable and affordable options that meet existing and projected needs.

Policy 1.1.2: Plan for appropriate land use designations and density to accommodate an ample supply of housing units by type, cost, and size within the City to meet housing needs, according to Citywide Housing Priorities and the City's General Plan.

Policy 1.1.6: Allocate citywide housing targets across Community Plan areas in a way that seeks to address patterns of racial and economic segregation, promote jobs/ housing balance, provide ample housing opportunities, and affirmatively further fair housing.

Objective 1.2: Facilitate the production of housing, especially projects that include Affordable Housing and/or meet Citywide Housing Priorities.

Policy 1.2.2: Facilitate the construction of a range of different housing types that addresses the particular needs of the city's diverse households.

Objective 1.3: Promote a more equitable distribution of affordable housing opportunities throughout the city, with a focus on increasing Affordable Housing in Higher Opportunity Areas and in ways that further Citywide Housing Priorities.

Policy 1.3.1: Prioritize housing capacity, resources, policies and incentives to include Affordable Housing in residential development, particularly near transit, jobs, and in Higher Opportunity Areas.

Goal 2: A City that preserves and enhances the quality of housing and provides greater housing stability for households of all income levels.

Objective 2.3: Preserve, conserve and improve the quality of housing.

Goal 3: A City in which housing creates healthy, livable, sustainable, and resilient communities that improve the lives of all Angelenos.

Objective 3.1: Use design to create a sense of place, promote health, foster community belonging, and promote racially and socially inclusive neighborhoods.

Policy 3.1.5: Develop and implement environmentally sustainable urban design standards and pedestrian-centered improvements in development of a project and within the public and private realm such as shade trees, parkways and comfortable sidewalks.

Objective 3.2: Promote environmentally sustainable buildings and land use patterns that support a mix of uses, housing for various income levels and provide access to jobs, amenities, services and transportation options.

Policy 3.2.1: Promote the integration of housing with other compatible land uses at both the building and neighborhood level.

Policy 3.2.2: Promote new multi-family housing, particularly Affordable and mixed-income housing, in areas near transit, jobs and Higher Opportunity Areas, in order to facilitate a better jobs-housing

The proposed project implements the Housing Element by increasing the housing supply consistent with the Neighborhood Office Commercial land use designation. The approval of the request permits 77 units including 8 units set aside for Extremely Low Income Households. As such, the proposed project would achieve the production of new housing opportunities, meeting the needs of the city, while ensuring a range of different housing types (studio, one-, two-, and three-bedroom rental units) that address the needs of the city's households. Therefore, the proposed project is consistent with the Housing Element goals, objectives and policies of the General Plan.

The **Mobility Element** of the General Plan (Mobility Plan 2035) will not be affected by the recommended action herein. West 3rd Street, adjoining the Property to the south, is a designated Avenue II, dedicated with an 86-foot right-of-way. Flores Street, adjoining the property to the east, is designated as a Local Street - Standard, dedicated with a 60-foot right-of-way. The project as designed will support the development of these Networks and meets the following policy objectives of Mobility Plan 2035:

Policy 2.3: Recognize walking as a component of every trip and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.

The building includes parking within two (2) above-grade levels, located on Level 2 and Level 3. Parking can be accessed from an ingress and egress driveway along the alley, adjoining Flores Street.

Policy 3.1: Recognize all modes of travel, including pedestrian, bicycle, transit, and vehicular modes - including goods movement - as integral components of the City's transportation system.

Policy 3.3: Promote equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services.

Policy 3.7: Improve transit access and service to major regional destinations, job centers, and inter-modal facilities.

Policy 3.8: Provide bicyclists with convenient, secure and well-maintained bicycle parking facilities.

Additionally, the proposed project site is located within close proximity to multiple transit options including the following bus lines on West 3<sup>rd</sup> Street and North La Cienega Boulevard. Metro Bus Line 16 and Metro Bus Lines 105 are located within 0.3 miles from the project. The close proximity to public transit which will reduce vehicular trips to and from the project, vehicle miles traveled, and will contribute to the improvement of the air quality. Additionally, the transit options will allow future residents to reduce their single-occupancy vehicular trips.

In addition, the project will provide a total of 38 parking spaces in two above-grade levels. The project will also provide bicycle parking including 60 long term and six (6) short term residential

bicycle parking as well as six (6) long term and six (6) short term commercial bicycle parking spaces.

Policy 5.4 Continue to encourage the adoption of low and zero emission fuel sources, new mobility technologies, and supporting infrastructure.

As conditioned, all electric vehicle charging spaces (EV Spaces) and electric vehicle charging stations (EVCS) shall comply with the regulations outlined in Section 99.04.106 of Article 9, Chapter IX of the LAMC to immediately accommodate electric vehicles within the parking areas.

Therefore, the proposed project is consistent with Mobility Plan 2035 goals, objectives, and policies of the General Plan.

The **Air Quality Element** of the General Plan will be implemented by the recommended action herein. The Air Quality Element sets forth the goals, objectives and policies which will guide the City in the implementation of its air quality improvement programs and strategies. The Air Quality Element recognizes that air quality strategies must be integrated into land use decisions and represent the City's effort to achieve consistency with regional Air Quality, Growth Management, Mobility and Congestion Management Plans. The Air Quality Element includes the following Goal and Objective relevant to the instant request:

Goal 5 Energy efficiency through land use and transportation planning, the use of renewable resources and less polluting fuels, and the implementation of conservation measures including passive methods such as site orientation and tree planting.

Objective 5.1 It is the objective of the City of Los Angeles to increase energy efficiency of City facilities and private developments.

As conditioned, the proposed project shall provide a solar-ready roof in compliance with the Los Angeles Municipal Green Building Code, Section 99.04.211.1. Therefore, the proposed project is in conformance with the goals and policies of the Air Quality Element.

Therefore, the proposed project is in substantial conformance with the purposes, intent and provisions of the General Plan and does not conflict with any applicable regulations or standards.

### **Environmental Findings**

5. **Class 32 CEQA Exemption.** The proposed project qualifies for a Class 32 Categorical Exemption because it conforms to the definition of "In-fill Projects". The project can be characterized as in-fill development within urban areas for the purpose of qualifying for Class 32 Categorical Exemption as a result of meeting five established conditions and if it is not subject to an Exception that would disqualify it. The Categorical Exception document dated January 15, 2024 and attached to the subject case file provides the full analysis and justification for project conformance with the definition of a Class 32 Categorical Exemption.
  
6. **Flood Insurance.** The National Flood Insurance Program rate maps, which are a part of the Flood Hazard Management Specific Plan adopted by the City Council by Ordinance No. 172,081, have been reviewed and it has been determined that this project is located outside of a flood zone.

## PUBLIC HEARING AND COMMUNICATIONS

A public hearing for Case No. CPC-2023-4573-DB-CU-SPR-HCA was held by the Hearing Officer via Zoom teleconference on January 9, 2024 at 10:00 a.m. The purpose of the hearing was to receive public testimony on behalf of the City Planning Commission as the decision maker on the case.

### 1. Attendees

The hearing was attended by representatives of the applicant, L.A. City Planning staff and approximately 37 individuals.

Representatives from Council District 5 were in attendance. No representatives from the Mid City West Neighborhood Council attended the public hearing.

### 2. Applicant Testimony

Mr. Jonathan Yang, the applicant's representative, presented the proposed project via PowerPoint and discussed the following:

- The existing site location and conditions of the subject property.
- The zoning of the subject property.
- The applicant has opted to use the State Density program.
- The applicant has opted to use Assembly Bill 2097 for vehicular parking.
- The applicant has met with Council District 5 and presented at the Mid City West Neighborhood Council Planning and Land Use Committee.
- The applicant discussed project details, entitlement requests, and briefly described architectural features of each floor.

### 3. Public Testimony

Twenty-two members of the public spoke during the hearing:

- Max Sherman is supportive of the proposed project.
- Mike Patterson, nearby resident, expressed concerns about proposed project height, compatibility of the project with surrounding neighborhood, and lack of parking for residents.
- Kristina Kopp, law firm representing a nearby resident, expressed concerns about the density of project, 100 feet of height, lack of appropriate setback, traffic congestion hazards due to the proposed project's use of the alley that will also cause congestion for nearby tenants.
- Maxwell Reisburg expressed concerns that the proposed project did not take into account the needs of the surrounding neighborhood, especially the lack of adequate proposed parking spaces.
- Walter Morgan, nearby resident, is opposed to the proposed project and expressed concerns about limited parking and traffic congestion for neighborhood.
- Jack Jason, nearby resident, is opposed to the proposed project and expressed concerns about the project's height being incompatible with the neighborhood and an inadequate amount of parking.
- Tracy Landers is opposed to the proposed project and expressed concerns about parking proposed by the project. Mentions that there is not enough existing parking in the neighborhood.

- Scott expressed opposition to the incentives of the proposed project. The lack of parking for residents is problematic and will cause parking congestion in neighborhood. This caller asked why subterranean parking is not provided, is concerned about the proposed project's requested waiver for a loading dock, and 100 feet height.
- John Beliucchi, nearby resident, expressed that this project was ill studied and is incompatible with the neighborhood.
- Freddy Ickowiz is opposed to the project and expressed concerns about safety and crime in the area and how the proposed project will negatively impact the elderly and women who need to walk in the neighborhood due to the lack of parking causing congestion.
- S.A. Backman, nearby resident, expressed concerns of the proposed project being insensitive to the character of the surrounding neighborhood, lack of parking, the 100 feet height being incompatible with the surrounding properties, safety issues, and lack of landscaping.
- Joseph Blum, nearby property owner, expressed concerns about the proposed project's lack of parking, 100 feet height, and proposed project not in character with surrounding neighborhood.
- Jeremy Weiner supports project.
- Lauren - opposes project, specifically opposes the alley access to parking and inadequate proposed parking.
- Ken Best, nearby resident and employer in the area expressed concerns about inadequate proposed parking.
- Jonathan, caller, is supportive of the project and the affordable housing proposed.
- David Law, nearby property owner, opposes the proposed project and expressed concerns of the proposed parking.
- Mark Leiber, nearby resident, expressed concerns of gentrification, how the proposed project is aesthetically incompatible with the surrounding neighborhood. Mr. Lieber also stated that construction has been ongoing and recommended security during the construction of the proposed project.
- Natalie Kaplan, nearby resident, opposed proposed project and expressed concerns proposed height, construction pollution and noise.
- Aaron, nearby resident, opposed project and expressed concerns about proposed parking and cites a nearby construction project that is ongoing on Flores Steet that in addition to the proposed project, will not be safe for bicyclists.
- Glenda Gill, nearby resident, expressed concerns about parking.
- Michel R., from the Haley Rosechi Trust, is an owner and nearby resident, opposes proposed project and expressed concerns regarding the project height and proposed parking.
- Jennifer Torres, representative from Council District 5, spoke in opposition of the proposed project at the public hearing.

#### 4. Closing Comments

The Hearing Officer asked the applicant's team to clarify the entitlements of the proposed project, specifically clarifying the request for a waiver of the commercial loading space requirement and proposed height of the project. At the public hearing's closing, the Hearing Officer announced that the case is scheduled to go to the City Planning Commission on February 8, 2024.

#### Additional Communications

Planning staff received 22 comment letters from individuals in opposition to the proposed project or expressing concerns. Noted concerns included the amount of vehicle parking the project is



proposing pursuant to AB 2097 in addition to expressing opposition to the proposed height, density, and request for a waiver of development standard to waive the requirement of a commercial loading space. Additional concerns of the proposed project's compatibility due to the requested entitlements and design to the surrounding neighborhood and disruption, pollution, and noise of the construction were also expressed.

Planning staff received four (4) comment letters expressing support of the proposed project, stating the addition of new residential units to be essential in addressing the City's housing shortage. The ground floor commercial area will enhance the neighboring community by stimulating economic growth and job opportunities.

Planning staff received a letter of support on January 16, 2024 from the Mid City West Neighborhood Council in support of the proposed project. At its General Board meeting held on December 23, 2023, the board of the Mid City West Neighborhood Council voted to support the project.

Planning staff received comment letters from attorneys of Mitchell M. Tsai Law Firm and Luna & Glushon expressing concerns over the project's environmental clearance.

#### Response to Comments

The comments made at the public hearings and otherwise received have been addressed in the Issues and Considerations section of the staff report.

**Exhibit A: Project Plans**  
**Case No. CPC-2023-4573-DB-CU-HCA**

CODE ANALYSIS

BUILDING CODE ANALYSIS

PROJECT SUMMARY

PROJECT DESCRIPTION

Table with columns: BUILDING SITE AREA, TOTALS, LEVELS 2-3: COMMERCIAL PARKING, LEVELS 4-8: RESIDENTIAL PROGRAM, TOTAL RESIDENTIAL = 77 UNITS

BUILDING TO BE PROVIDED WITH FULLY AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH CBC 903.3.1.1 AND NFPA 13. AND WITH FIRE ALARM PER CBC 504.4, A MAXIMUM OF (5) STORIES OF TYPE IIIA ARE ALLOWED.

THIS IS NOT A PUBLIC HOUSING FACILITY OWNED AND/OR OPERATED BY, FOR OR ON BEHALF OF A PUBLIC ENTITY AND NO TAX CREDIT RECEIVED FROM STATE OR FEDERAL, NOT A TCAC FACILITY AND NOT A SOCIAL SERVICE CENTER.

100% PRIVATELY FUNDED.

FLOOR AREA SUMMARIES (BASED ON CBC TABLE 504.3):

PROVIDED AREA:

Table with columns: LEVEL, AREA, TYPE IIIA, TYPE IA

ALLOWABLE AREA:

Table with columns: FULLY SPRINKLERED, TYPE IA & TYPE IIIA (WO FRONTAGE INCREASE - CBC 504.1)

CBC CH. 2 DEFINITION:

AREA, BUILDING - THE AREA INCLUDED WITHIN SURROUNDING EXTERIOR WALLS (OR EXTERIOR WALLS AND FIRE WALLS) EXCLUSIVE OF VENT SHAFTS AND COURTS. AREAS OF THE BUILDING NOT PROVIDED WITH SURROUNDING WALLS SHALL BE INCLUDED IN BUILDING AREA IF SUCH AREA ARE INCLUDED WITHIN THE HORIZONTAL PROJECTION OF THE ROOF OR FLOOR ABOVE.

PARKING BREAK DOWN

SEE SHEET A005 FOR ADDITIONAL INFORMATION.

NO PARKING REQUIRED PER AB2097

Table with columns: PARKING PROVIDED (ALL COMMERCIAL), EV SPACES, ACCESSIBLE SPACES, STANDARD SPACES, COMPACT SPACES

PARKING SPACE DIMENSIONS (11B-502, 11B-812.6, P/ZC 2023-001)

Table with columns: COMPACT (C1), COMPACT (C3), COMPACT (EV SPACE / EVCS), ACCESSIBLE VAN, ACCESSIBLE VAN, EXCEPTION, ACCESSIBLE STANDARD, EV ACCESSIBLE VAN, EV ACCESSIBLE STANDARD

REQUIRED EV PARKING (PER LA GREEN CODE 2023 - 5.106.5.3.1 AND 5.106.5.3.2):

Table with columns: EV SPACES (5.106.5.3.1), EVCS (5.106.5.3.2), EVCS VAN ACC (T-11B-228.3.2.1), EVCS STD ACC (T-11B-228.3.2.1)

EV PARKING NOTES:

- THE NUMBER OF EVCS SHALL COUNT TOWARD THE TOTAL NUMBER OF REQUIRED EV CAPABLE SPACES AS REQUIRED FOR THE BUILDING PER THE LOS ANGELES MUNICIPAL CODE SUBSECTION 5.106.5.3.1, (5.106.5.3.2) AT LEAST ONE EVCS SHALL BE PROVIDED WITH LEVEL 2 EVSE (5.106.5.3.2)

REQUIRED ACCESSIBLE PARKING (PER 11B-208.2):

Table with columns: ACCESSIBLE SPACES (T-11B-208.2) (26 SPACES TOTAL) = 2 SPACES, VAN ACCESSIBLE (11B-208.2.4) (1 per 6 SPACES) 1 SPACE, STD ACCESSIBLE 1 SPACE

ACCESSIBLE PARKING NOTES:

- FOR THE PURPOSES OF THIS SECTION, ELECTRIC VEHICLE CHARGING STATIONS ARE NOT PARKING SPACES; SEE SECTION 11B-228, (11B-208.1)

DEFINITIONS (LACGBC SECTION 202):

- ELECTRIC VEHICLE CHARGING SPACE (EV SPACE) [HCD] A SPACE INTENDED FOR FUTURE INSTALLATION OF EV CHARGING EQUIPMENT AND CHARGING OF ELECTRIC VEHICLES. ELECTRIC VEHICLE CHARGING STATION (EVCS) [HCD] ONE OR MORE ELECTRIC VEHICLE CHARGING SPACES SERVED BY ELECTRIC VEHICLE CHARGER(S) OR OTHER CHARGING EQUIPMENT ALLOWING CHARGING OF ELECTRIC VEHICLES. ELECTRIC VEHICLE CHARGING STATIONS ARE NOT CONSIDERED PARKING SPACES. ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE) [BSC-CG, DSA-SS AND HCD] THE CONDUCTORS, INCLUDING THE UNGROUNDED, GROUNDED AND EQUIPMENT GROUNDING CONDUCTORS AND THE ELECTRIC VEHICLE CONNECTORS, ATTACHMENT PLUGS, AND ALL OTHER FITTINGS, DEVICES, POWER OUTLETS OR APPARATUS INSTALLED SPECIFICALLY FOR THE PURPOSE OF TRANSFERRING ENERGY BETWEEN THE PREMISES WIRING AND THE ELECTRIC VEHICLE.

PROJECT DESCRIPTION

THE PROPOSED DEVELOPMENT IS THE CONSTRUCTION OF AN APPROXIMATELY 90,066 SQ. FT. 8-STORY MIXED USE MULTIFAMILY BUILDING CONTAINING 77 RESIDENTIAL DWELLING UNITS CONSISTING OF 10 STUDIOS, 35 ONE-BEDROOMS, 27 TWO-BEDROOMS, AND 5 3-BEDROOM UNITS WITH 11,026 SQ. FT. OF RETAIL SPACE ON THE GROUND FLOOR AND PROVIDING 38 PARKING SPACES.

THE PROJECT WILL SET ASIDE 15% AS RESTRICTED AFFORDABLE HOUSING UNITS FOR A TOTAL OF 8 EXTREMELY LOW-INCOME UNITS.

THE PROJECT SITE IS ZONED C2-1VL-O AND LOCATED WITHIN THE WILSHIRE COMMUNITY PLAN AREA.

THE PROJECT WILL BE UTILIZING OFF MENU DENSITY BONUS INCENTIVES BY REQUESTING A HEIGHT AND STORY INCREASE OF 55 FEET/5 STORIES, AN FAR INCREASE TO 4.66:1 IN LIEU OF THE ALLOWED 1.5:1, AND A 75% REDUCTION IN REQUIRED OPEN SPACE.

THE PROJECT WILL ALSO UTILIZE TWO WAIVER OF DEVELOPMENT STANDARDS TO REDUCE THE WESTERLY RESIDENTIAL REAR YARD SETBACK TO 0 FT. AS OPPOSED TO THE REQUIRED 20 FT AND TO WAIVE THE LOADING DOCK REQUIREMENT FOR THE DEVELOPMENT.

THE PROJECT WILL ALSO BE UTILIZING A CONDITIONAL USE PERMIT FOR DENSITY GREATER THAN 35% (PROJECT PROPOSES A 45% INCREASE IN DENSITY).

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF LOS ANGELES, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

LOT 141, EXCEPT THE WESTERLY ONE-HALF THEREOF, AND ALL OF LOTS 142, 143 AND 144 OF TRACT NO. 10389, IN THE CITY OF LOS ANGELES, AS PER MAP RECORDED IN BOOK 152, PAGES 17 AND 18 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER.

APN: 5511-016-016

DOCUMENT SUBMITTALS

THE FOLLOWING DISCIPLINES ARE INCLUDED IN THIS ARCHITECTURAL SET:

- CIVIL, LANDSCAPE

SEPARATE PERMITS

THE FOLLOWING DISCIPLINES WILL BE SUBMITTED UNDER SEPARATE PERMIT APPLICATION:

- DEMOLITION, SHORING, EXCAVATION AND ROUGH GRADING, MECHANICAL, ELECTRICAL, PLUMBING, TENANT IMPROVEMENT - RETAIL SPACES, BLOCK FENCE WALLS, GRADING WORKS, RETAINING WALLS, POOL/SPA

DEFERRED SUBMITTALS

PERMITS FOR DEFERRED SUBMITTALS / APPROVAL AND DESIGN-BUILD ITEMS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

- STOREFRONT SYSTEMS, DESIGN-BUILD METAL STAIRS, LANDINGS AND RAILINGS (TYPE 1A), ELEVATORS, COLD-FORMED METAL STUD SYSTEM - EXTERIOR AND INTERIOR, DECK GLASS/METAL RAILINGS, FIRE SPRINKLER SYSTEM, SIGNAGE PACKAGE, SECURITY SYSTEM, FIRE ALARM SYSTEM AND MONITORING, EMERGENCY RESPONDER RADIO COVERAGE SYSTEM (ERRCS) / DISTRIBUTED ANTENNA SYSTEM (DAS), 2-WAY COMMUNICATION SYSTEM FOR RESCUE ASSISTANCE, AUDIO / VIDEO SYSTEMS, WI-FI ACCESS POINTS, LOW VOLTAGE STRUCTURED WIRING, ACTIVE METHANE DETECTION SYSTEM

THIRD + FLORES



APPLICABLE CODES

Table with columns: BUILDING CODE, GREEN BUILDING CODE, ELECTRICAL CODE, MECHANICAL CODE, PLUMBING CODE, FIRE CODE, ENERGY CODE, ELEVATOR CODE, PLANNING AND ZONING, THE FAIR HOUSING ACT (FHA), THE AMERICAN WITH DISABILITIES ACT (ADA)

PROJECT DIRECTORY

Table with columns: OWNER/CLIENT, ARCHITECT, CIVIL, LANDSCAPE ARCHITECT, STRUCTURAL, GEOTECH, MECHANICAL, ELECTRICAL, PLUMBING, EXTERIOR BUILDING MAINTENANCE

ARCHITECT



100 WEST BROADWAY SUITE 3000 LONG BEACH, CA 90802 (562) 414-4066

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CLIENT/OWNER

FLORES FUND, LLC

888 S. FIGUEROA STREET SUITE 1900 LOS ANGELES, CA. 90017

PROJECT

THIRD + FLORES

8339 W. 3RD STREET LOS ANGELES CA. 90048

ISSUES & REVISIONS

Table with columns: NO., DATE, DESCRIPTION

NOT FOR CONSTRUCTION

- ISSUE AS: HOH REVIEW, ISSUE DATE: 12/11/2023, SCALE: As indicated, PROJECT NUMBER: 2021-114, SHEET TITLE

COVER SHEET

SHEET NUMBER

A000

FIRE DEPARTMENT NOTES

PROVIDE APPROVED ADDRESS IDENTIFICATION THAT IS LEGIBLE AND PLACED VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. (LAFD 505.1)

INTERIOR WALL AND CEILING FINISH SHALL HAVE A FLAME SPREAD INDEX NOT GREATER THAN THAT SPECIFIED IN T803.11. SPECIFY INTERIOR WALL AND CEILING FINISH ON PLANS. (LAFD 803.3)

MATERIAL, OTHER THAN FOAM PLASTICS, USED AS INTERIOR TRIM SHALL HAVE A MIN CLASS C FLAME SPREAD AND SMOKE-DEVELOPED INDEX AND SHALL NOT EXCEED 10% OF THE WALL OR CEILING AREA IN WHICH IT IS ATTACHED. (LAFD 804.1)

CURTAINS, DRAPERIES, FABRIC HANGINGS, AND SIMILAR COMBUSTIBLE DECORATIVE MATERIALS SUSPENDED FROM WALLS OR CEILINGS SHALL NOT EXCEED 10% OF THE WALL OR CEILING AREA TO WHICH SUCH MATERIALS ARE ATTACHED. (LAFD 807.3)\*\*

IN EVERY GROUP A, E, I, R-1, R-2, AND R-2.1, ALL DRAPES, HANGINGS, CURTAINS, DROPS, AND ALL OTHER DECORATIVE MATERIAL SHALL BE MADE FROM A NONFLAMMABLE MATERIAL OR TREATED AND MAINTAINED IN A FLAME-RETARDANT CONDITION BY MEANS OF A FLAME-RETARDANT SOLUTION OR PROCESS APPROVED BY THE OSFM. (TITLE 19, DIV 1, §3.08)\*\*

DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED 34" MIN AND 48" MAX ABOVE THE FINISHED FLOOR.

EXIT SIGNS SHALL BE READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. EXIT SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN AN EXIT ACCESS CORRIDOR OR EXIT PASSAGEWAY IS MORE THAN 100' FROM THE NEAREST VISIBLE EXIT SIGN. (CBC 1013.1)\*\*

THE MIN ROOF COVERINGS INSTALLED ON BUILDINGS SHALL COMPLY WITH T1505.1. (CBC 1505.1)\*\*

ALL BUILDINGS WITH ≥1 PASSENGER SERVICE ELEVATOR SHALL BE PROVIDED WITH ≥1 MEDICAL EMERGENCY SERVICE ELEVATOR TO ALL LANDINGS. ELEVATOR SHALL ACCOMMODATE AN AMBULANCE GURNEY OR STRETCHER (24"X84") AND BE SIZED 80" X54" MIN. (CBC 3002.4A)\*\*

ELEVATOR HOISTWAY DOOR OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH CBC 3006.3. (CBC 3006.2)

AN AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED AT THE TOP OF RUBBISH AND LINEN CHUTES AND IN THEIR TERMINAL ROOMS. CHUTES SHALL HAVE ADDITIONAL SPRINKLER HEADS INSTALLED AT ALTERNATE FLOORS AND AT THE LOWEST INTAKE. (LAFD 903.2.11.2)

CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL THE ALARMS IN THE INDIVIDUAL UNIT. REQUIRED CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH A BATTERY BACKUP. (CBC 915.4.2/4)

SMOKE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL THE ALARMS IN THE INDIVIDUAL UNIT. REQUIRED SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH A BATTERY BACKUP. (LAFD 907.2.11.5-6)

PROVIDE EMERGENCY RESPONDER RADIO COVERAGE IN ACCORDANCE WITH LAFD 510. (CBC 916.1)

MEANS OF EGRESS SERVING A ROOM OR SPACE SHALL BE ILLUMINATED AT ALL TIMES THAT THE ROOM OR SPACE IS OCCUPIED. THE ILLUMINATION LEVEL SHALL NOT BE <1 FOOTCANDLE AT THE WALKING SURFACE. (CBC 1008.2)

IN THE EVENT OF POWER SUPPLY FAILURE, AN EMERGENCY ELECTRICAL SYSTEM SHALL AUTOMATICALLY ILLUMINATE ALL OF THE FOLLOWING AREAS FOR A DURATION OF NOT <90 MIN. EMERGENCY LIGHTING FACILITIES SHALL BE ARRANGED TO PROVIDE INITIAL ILLUMINATION THAT IS NOT LESS THAN AN AVERAGE OF 1 FOOTCANDLE AND A MIN AT ANY POINT OF: 1 FOOTCANDLE. (CBC 1008.3-5)

- I. AISLES.
II. CORRIDORS.
III. EXIT ACCESS STAIRWAYS AND RAMPS.
IV. INTERIOR AND EXTERIOR EXIT STAIRWAYS AND RAMPS.
V. EXIT PASSAGEWAYS.
VI. VESTIBULES AND AREAS ON THE LEVEL OF DISCHARGE USED FOR EXIT DISCHARGE.
VII. ELECTRICAL EQUIPMENT ROOMS.
VIII. FIRE COMMAND CENTERS.
IX. FIRE PUMP ROOMS.
X. GENERATOR ROOMS.
XI. PUBLIC RESTROOMS >300 SF.

PROVIDE TWO-WAY COMMUNICATION AT THE LANDING SERVING EACH ELEVATOR OR BANK OF ELEVATORS ABOVE OR BELOW THE LEVEL OF EXIT DISCHARGE. (CBC 1009.8)\*\*

EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED (CBC 1013.3)\*\*

TACTILE EXIT SIGNS SHALL BE REQUIRED AT THE FOLLOWING LOCATIONS: (CBC 1013.4)

- A. "EXIT" SIGN AT EACH GRADE-LEVEL EXTERIOR DOOR.
B. EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY MEANS OF A STAIRWAY OR RAMP SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE FOLLOWING WORDS AS APPROPRIATE:
I. "EXIT STAIR DOWN".
II. "EXIT RAMP DOWN".
III. "EXIT STAIR UP".
IV. "EXIT RAMP UP".
C. "EXIT ROUTE" AT EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY MEANS OF AN EXIT ENCLOSURE OR AN EXIT PASSAGEWAY.
D. "EXIT ROUTE" AT EACH EXIT ACCESS DOOR FROM AN INTERIOR ROOM OR AREA TO A CORRIDOR OR HALLWAY.
E. "TO EXIT" AT EACH EXIT DOOR THROUGH A HORIZONTAL EXIT.

EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES. (CBC 1013.5)

THE FACE OF AN EXIT SIGN ILLUMINATED FROM AN EXTERNAL SOURCE SHALL HAVE AN INTENSITY OF ≥5 FOOTCANDLES. (CBC 1013.6.2)

IN CASE OF PRIMARY POWER LOSS, THE SIGN ILLUMINATION MEANS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM FOR A DURATION OF NOT <30 MINUTES. (CBC 1013.6.3)\*\*

PROVIDE A SIGN AT EACH FLOOR LANDING IN AN INTERIOR EXIT STAIRWAY AND RAMP CONNECTING >3 STORIES DESIGNATING THE FLOOR LEVEL, THE TERMINUS OF THE TOP AND BOTTOM AND THE IDENTIFICATION OF THE STAIRWAY OR RAMP. THE SIGNAGE SHALL ALSO STATE THE STORY OF, AND THE DIRECTION TO, THE EXIT DISCHARGE AND THE AVAILABILITY OF ROOF ACCESS FOR THE FIRE DEPARTMENT. THE SIGN SHALL BE LOCATED 5' ABOVE THE FLOOR LANDING. (CBC 1023.9)

PROJECT ADDRESS: 8339 W. 3RD ST. LOS ANGELES, CA 90048
LOT AREAS: LOT 141, LOT 142, LOT 143, LOT 144, 1/2 ALLEY (10X183.715)
TOTAL LOT AREA (For Density): Lot Area + 1/2 Alley Width: 2,779.4 SF, 5,558.8 SF, 5,558.4 SF, 5,442.1 SF, 1,834.6 SF, 21,175.37 SF
TOTAL LOT BUILDABLE AREA (For FAR): Lot Area without 1/2 Alley Width: 19,339.8 SF

APPLICABLE CODES
LAMC 12.22.A.25
AB 2097

C2-1VL-0 ZONING

# STORIES 8

4.66 FAR

77 DENSITY

Table with columns: YARDS/SETBACKS, HEIGHT, FLOOR AREA RATIO (FAR), BUILDABLE AREA (SF), FLOOR AREA (SF), RESIDENTIAL DENSITY (DU), RESTRICTED AFFORDABLE UNITS, PARKING (VEHICULAR), PARKING (BICYCLE)

FLOOR AREA SUMMARY (ZONING SF PER LAMC SEC 12.03)
LEVEL 1: 12,421 SF
LEVEL 2: 1,588 SF
LEVEL 3: 8,545 SF
LEVEL 4: 14,597 SF
LEVEL 5: 13,532 SF
LEVEL 6: 13,441 SF
LEVEL 7: 14,540 SF
LEVEL 8: 13,441 SF
TOTAL\*: 90,064 SF

UNIT MIX SUMMARY
STANDARD: UNIT TYPE, UNIT COUNT, TYPE COUNT, % MIX, # BR, # BA, BR TOTAL, UNIT NESP, NESP
SUBTOTAL STANDARD: 77, 114, 831, 43,957

OPEN SPACE SUMMARY (PER LAMC SEC 12.21.G)
UNIT TYPE, NO. UNITS, HABITABLE RMS, REQ'D SF, TOTAL REQ'D
TOTAL CREDITED OPEN SPACE: 2,188
TOTAL NON CREDITED OPEN SPACE: 5,328

REQUIRED BICYCLE PARKING (LA GREEN CODE):
(5,106 4.1.1 AND 5,106 4.1.2) :
SHORT-TERM PARKING: 39 SPACES x 5% = 2 SPACES
LONG-TERM PARKING: 39 SPACES x 5% = 2 SPACES

NOTES
1. PER LAMC SEC 12.03, THE AREA CONFINED WITHIN THE EXTERIOR WALLS...
2. PER LOS ANGELES ZONING CODE MANUAL, PAGE 46 AND PAGE 237...
3. PER LOS ANGELES ZONING CODE MANUAL, PAGE 46 AND PAGE 237...

ARCHITECT



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LONG BEACH, CA 90802
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LOS ANGELES, CA. 90017

PROJECT

THIRD + FLORES

8339 W. 3RD STREET
LOS ANGELES CA. 90048

ISSUES & REVISIONS

Table with columns: NO., DATE, DESCRIPTION

NOT FOR CONSTRUCTION

- ISSUE AS: HOH REVIEW
ISSUE DATE: 12/11/2023
SCALE:
PROJECT NUMBER: 2021-114
SHEET TITLE

SHEET NUMBER

A005

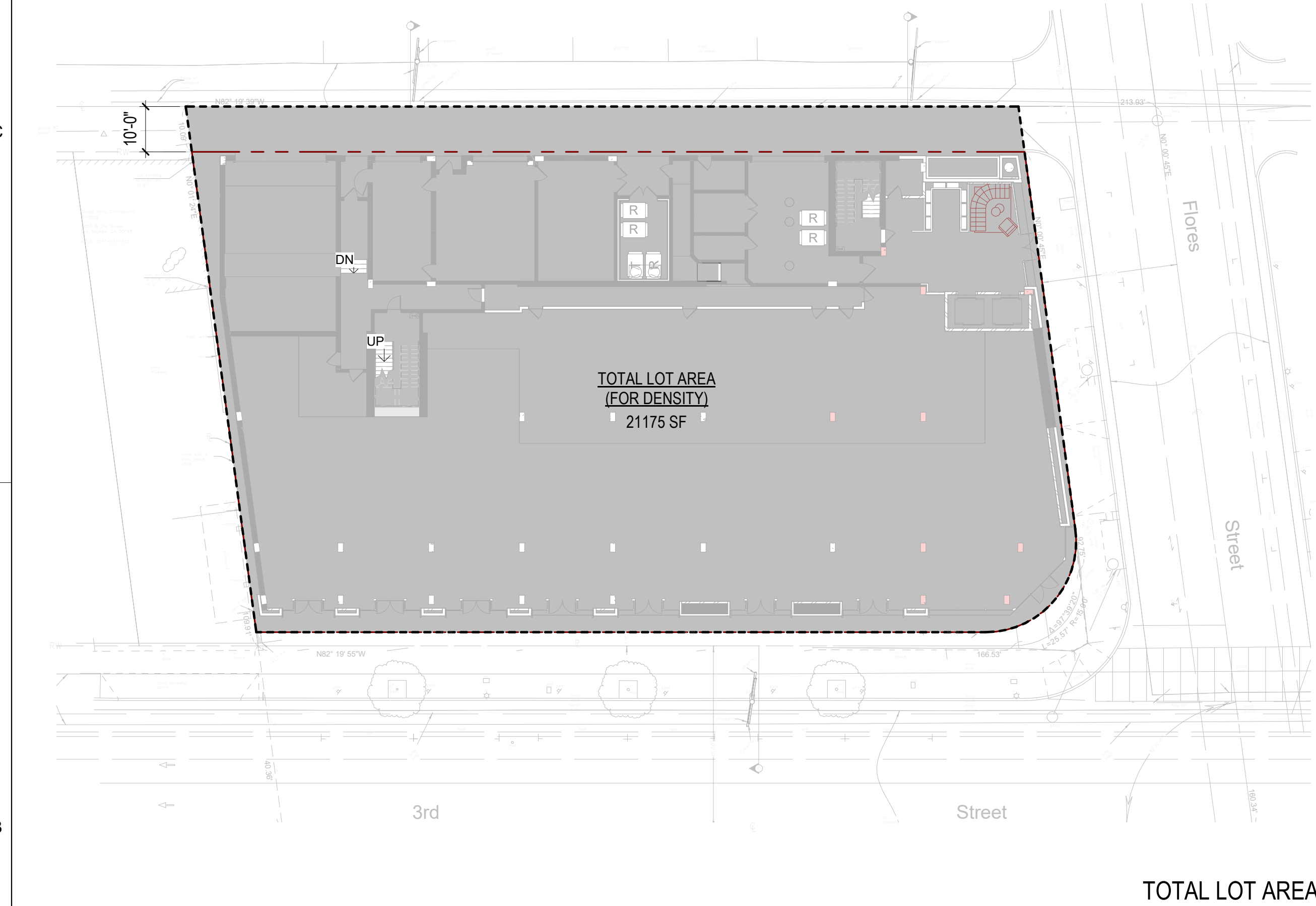
REFER TO SHEET A006 FOR ZONING DIAGRAMS



SETBACK DIAGRAM 4  
3/164" = 1'-0"



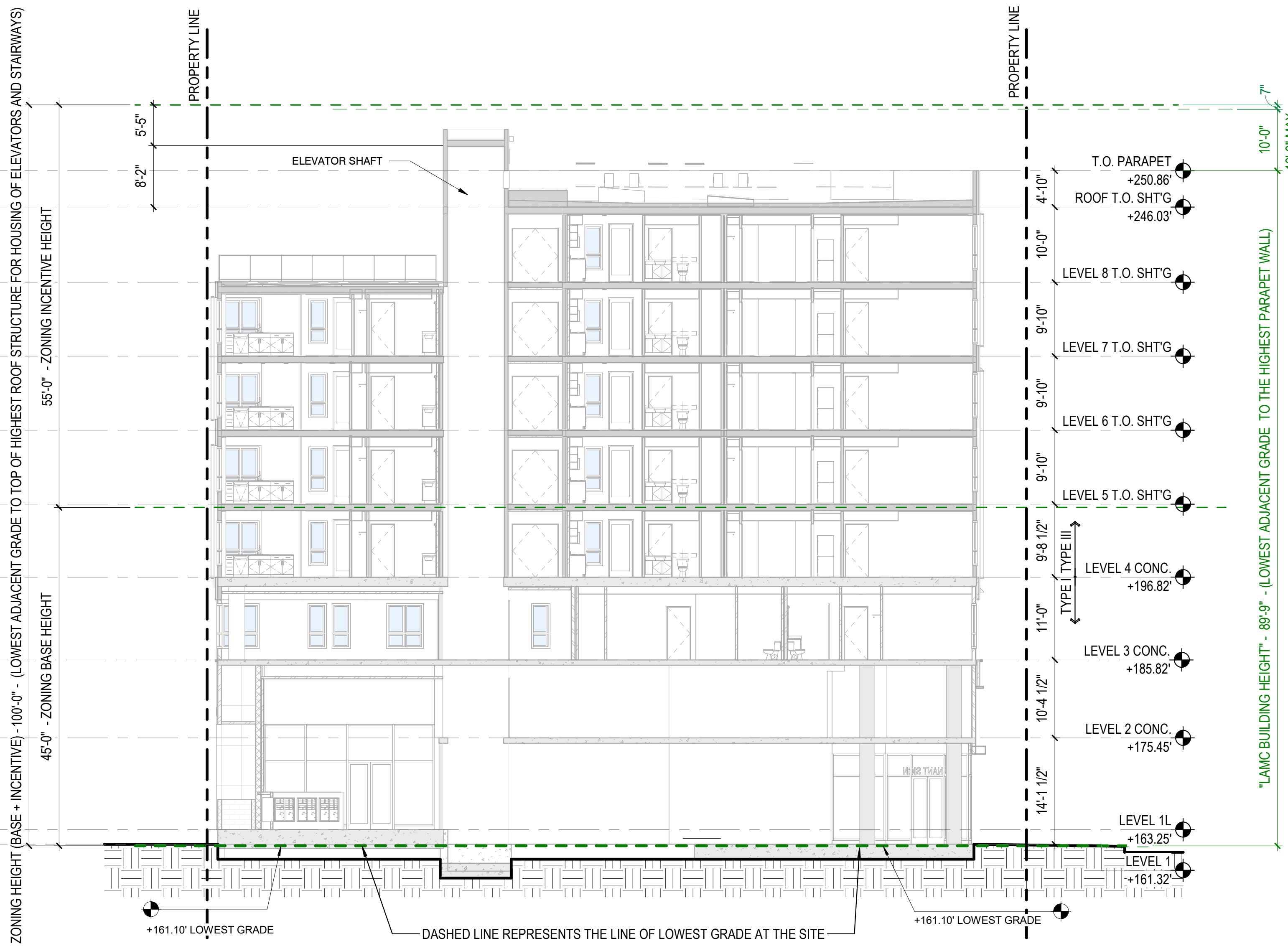
SETBACK DIAGRAM - RESIDENTIAL LEVELS 5  
3/164" = 1'-0"



TOTAL LOT AREA 3  
3/164" = 1'-0"



BUILDABLE AREA 2  
3/164" = 1'-0"



LOWEST GRADE DIAGRAM

ZONING HEIGHTS DIAGRAM 1  
3/32" = 1'-0"

ISSUES & REVISIONS

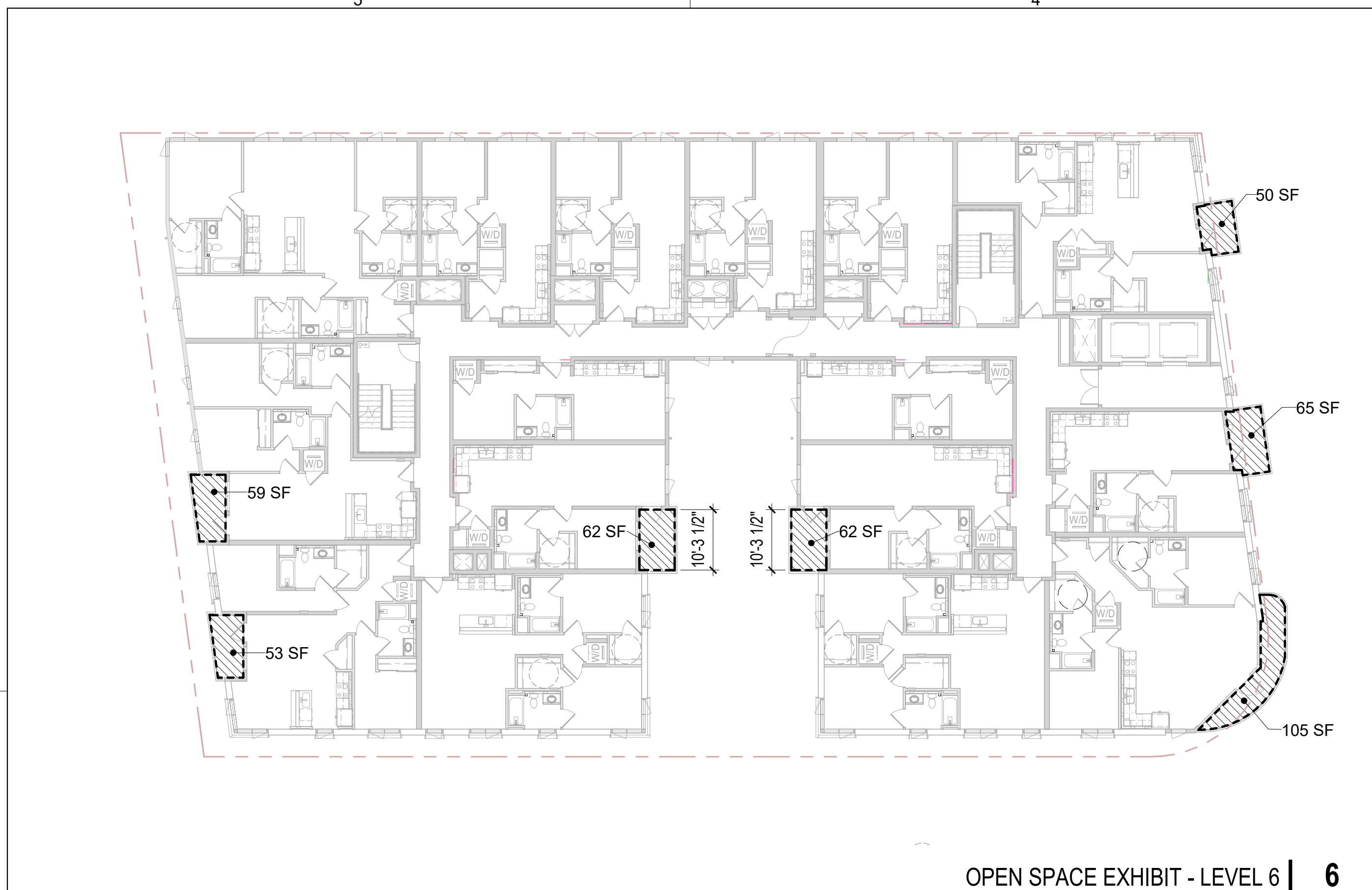
NO.	DATE	DESCRIPTION

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- SHEET TITLE

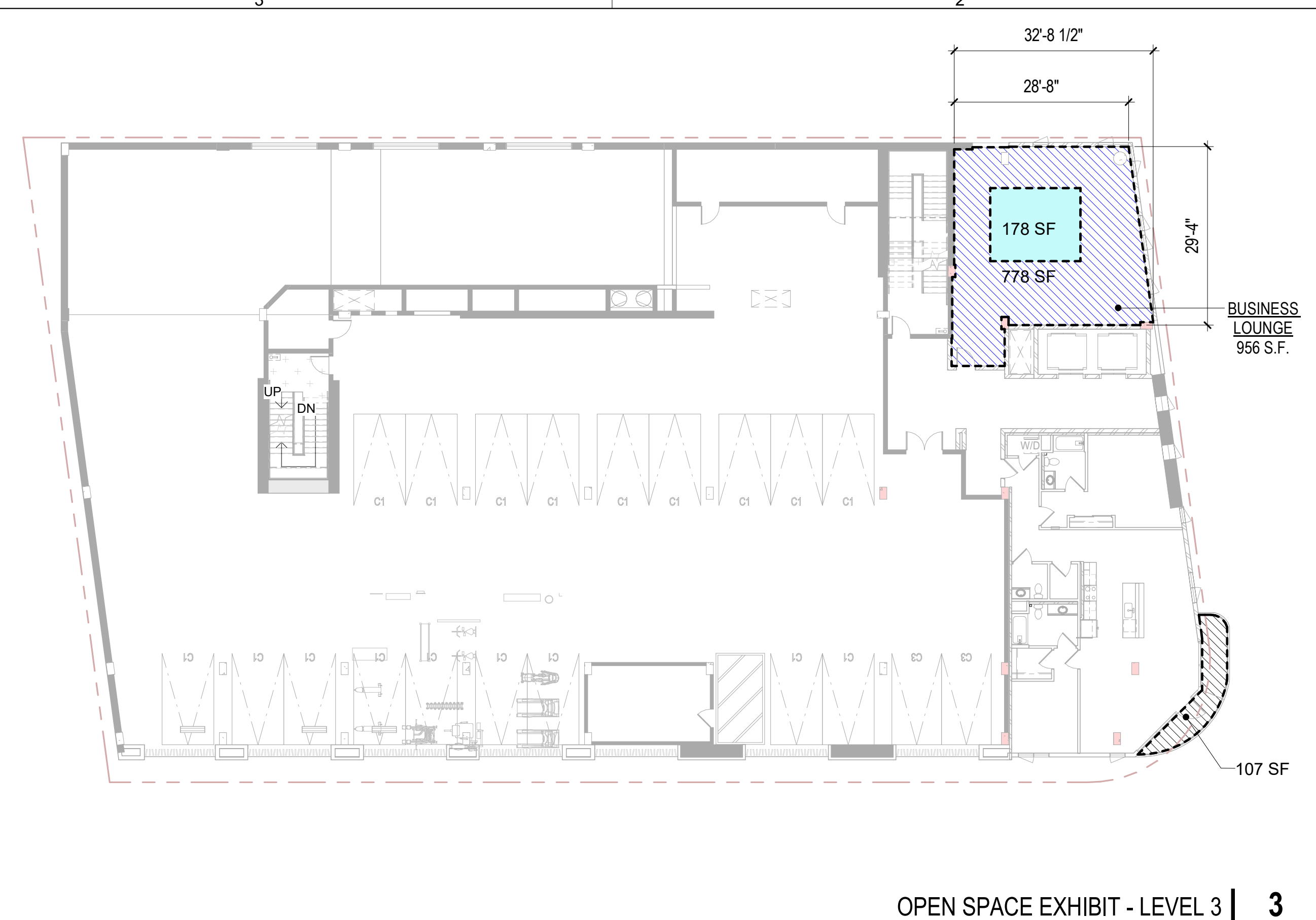
PROJECT SUMMARY





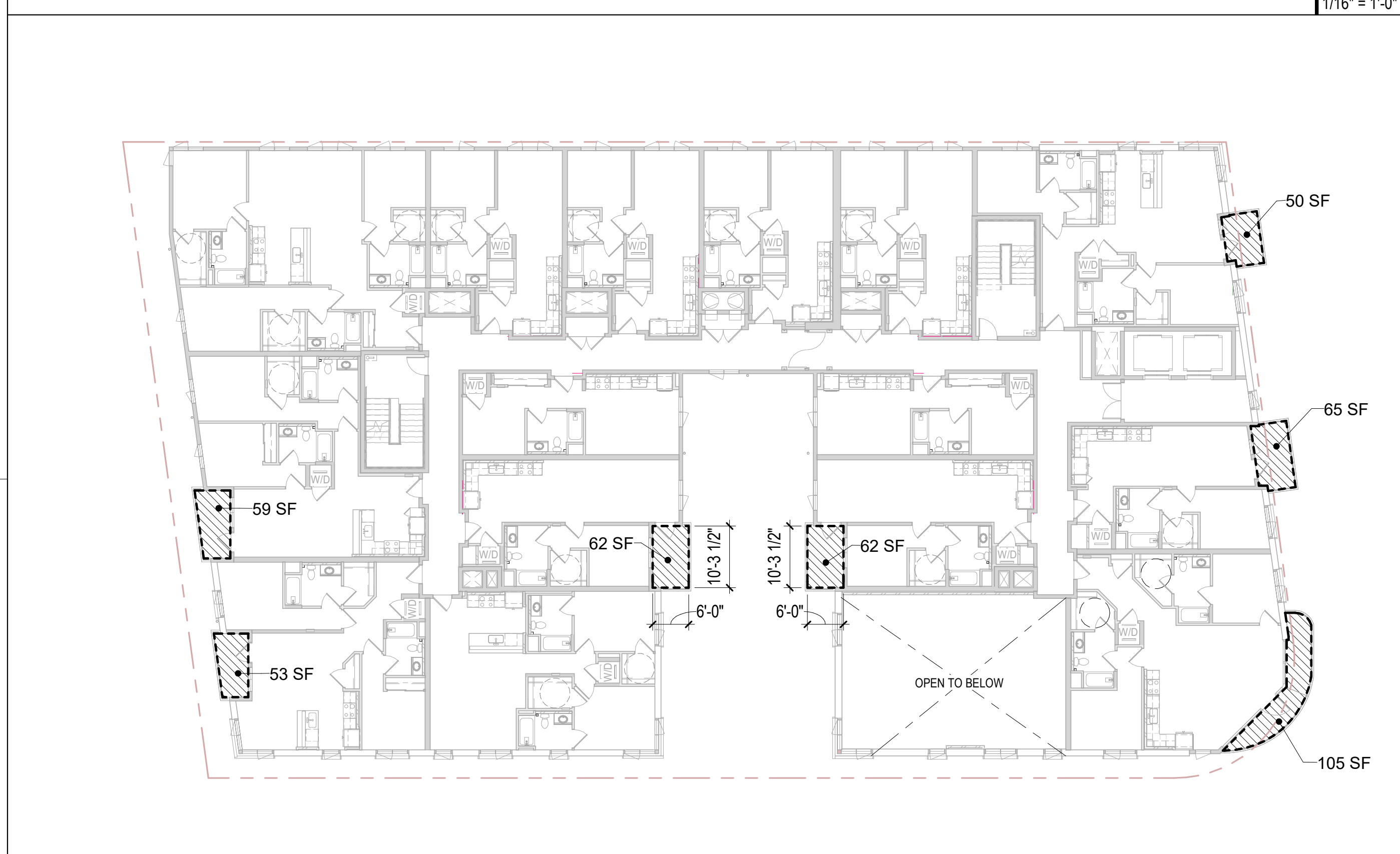
OPEN SPACE EXHIBIT - LEVEL 6 | 6

1/16" = 1'-0"



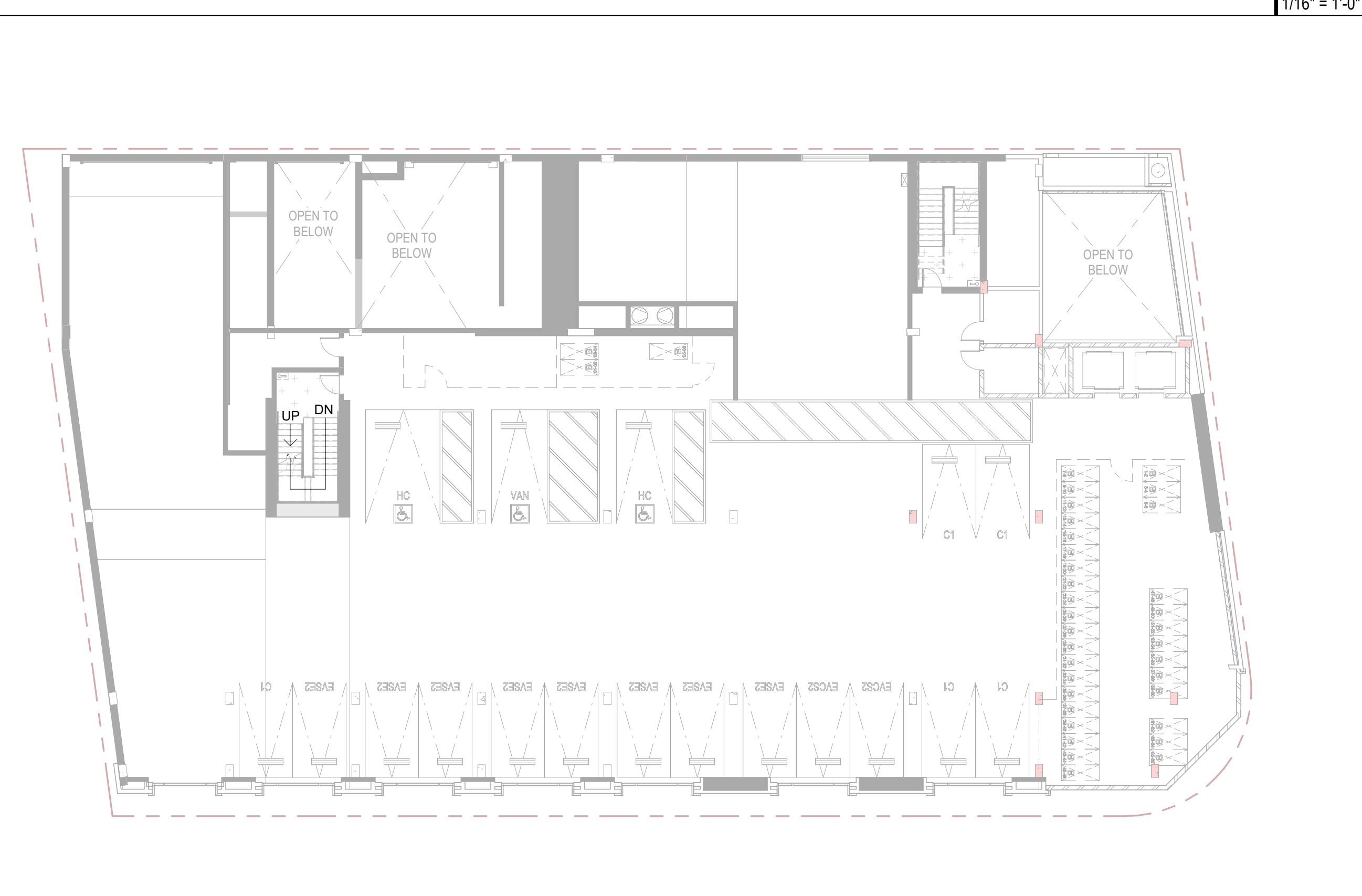
OPEN SPACE EXHIBIT - LEVEL 3 | 3

1/16" = 1'-0"



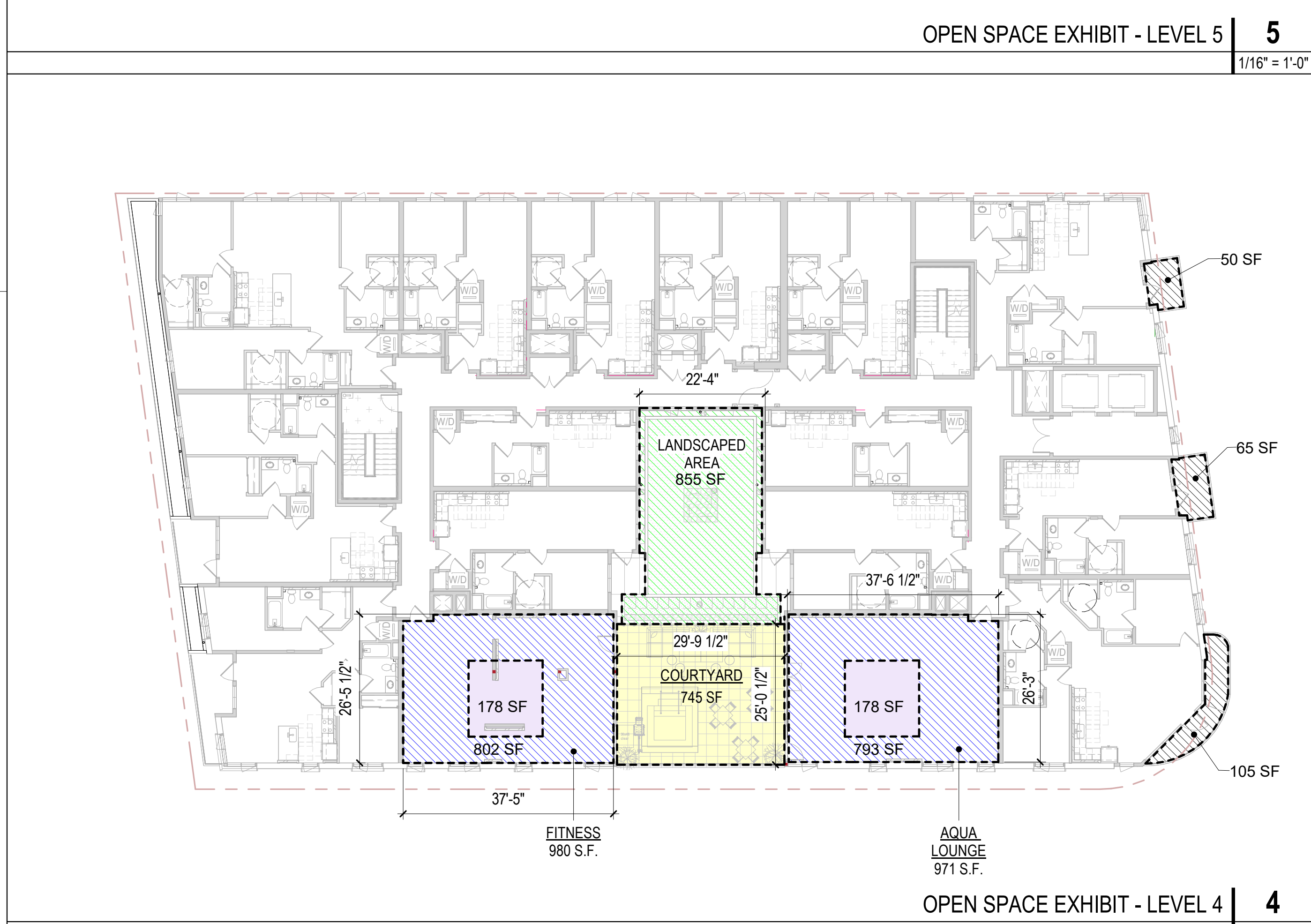
OPEN SPACE EXHIBIT - LEVEL 5 | 5

1/16" = 1'-0"



OPEN SPACE EXHIBIT - LEVEL 2 | 2

1/16" = 1'-0"



OPEN SPACE EXHIBIT - LEVEL 4 | 4

1/16" = 1'-0"



OPEN SPACE EXHIBIT - LEVEL 1 | 1

1/16" = 1'-0"

**OPEN SPACE NOTES**

LOS ANGELES MUNICIPAL CODE SEC. 12.21:  
**G. OPEN SPACE REQUIREMENT FOR SIX OR MORE RESIDENTIAL UNITS.** (ADDED BY ORD. NO. 171,753, EFF. 11/17/97.)  
 2. REGULATIONS. NEW CONSTRUCTION (RESULTING IN ADDITIONAL FLOOR AREA AND ADDITIONAL UNITS) OF A BUILDING OR GROUP OF BUILDINGS CONTAINING SIX OR MORE DWELLING UNITS ON A LOT SHALL PROVIDE AT A MINIMUM THE FOLLOWING USABLE OPEN SPACE PER DWELLING UNIT: 100 SQUARE FEET FOR EACH UNIT HAVING LESS THAN THREE HABITABLE ROOMS; 125 SQUARE FEET FOR EACH UNIT HAVING THREE HABITABLE ROOMS; AND 175 SQUARE FEET FOR EACH UNIT HAVING MORE THAN THREE HABITABLE ROOMS.

(A) COMMON OPEN SPACE:

(1) COMMON OPEN SPACE SHALL MEET EACH OF THE FOLLOWING REQUIREMENTS:  
 (I) BE OPEN TO THE SKY AND HAVE NO STRUCTURES THAT PROJECT INTO THE COMMON OPEN SPACE AREA, EXCEPT AS PROVIDED IN SECTION 12.22 C.20.(b).  
 (II) BE READILY ACCESSIBLE TO ALL THE RESIDENTS OF THE SITE.  
 (III) HAVE A MINIMUM AREA OF 400 SQ. FT. WITH NO HORIZONTAL DIMENSIONS LESS THAN 15 FEET WHEN MEASURED PERPENDICULAR FROM ANY POINT ON EACH OF THE BOUNDARIES OF THE OPEN SPACE AREA.  
 (IV) BE LOCATED AT THE GRADE LEVEL OR FIRST HABITABLE ROOM LEVEL, EXCEPT IN DEVELOPMENTS BUILT AT AN R3, RA33, R4, RASA, AND/OR R5 DENSITY REGARDLESS OF THE UNDERLYING ZONE. (AMENDED BY ORD. NO. 174,999, EFF. 1/15/03.)  
 (2) COMMON OPEN SPACE AREAS SHALL INCORPORATE RECREATIONAL AMENITIES SUCH AS SWIMMING POOLS, SPAS, PICNIC TABLES, BENCHES, CHILDREN'S PLAY AREAS, BALL COURTS, BARBECUE AREAS AND SITTING AREAS. (AMENDED BY ORD. NO. 184,505, EFF. 1/14/17.)  
 (3) A MINIMUM OF 25 PERCENT OF THE COMMON OPEN SPACE AREA SHALL BE PLANTED WITH GROUND COVER, SHRUBS OR TREES. AT LEAST ONE 24-INCH BOX TREE FOR EVERY FOUR DWELLING UNITS SHALL BE PROVIDED ON SITE AND MAY INCLUDE STREET TREES IN THE PARKWAY. FOR THE SURFACE AREA NOT LOCATED DIRECTLY ON FINISHED GRADE THAT IS USED FOR COMMON OPEN SPACE, AND LOCATED AT GRADE LEVEL OR THE FIRST HABITABLE ROOM LEVEL, SHRUBS AND/OR TREES SHALL BE CONTAINED WITHIN PERMANENT PLANTERS AT LEAST 30-INCHES IN DEPTH, AND LAWN OR GROUND COVER SHALL BE AT LEAST 12-INCHES IN DEPTH. ALL REQUIRED LANDSCAPED AREAS SHALL BE EQUIPPED WITH AN AUTOMATIC IRRIGATION SYSTEM AND BE PROPERLY DRAINED.  
 (4) NOTWITHSTANDING THE PROVISIONS SET FORTH IN THIS PARAGRAPH:  
 (I) RECREATION ROOMS AT LEAST 600 SQUARE FEET IN AREA FOR A DEVELOPMENT OF 16 OR MORE DWELLING UNITS, OR AT LEAST 400 SQUARE FEET IN AREA FOR A DEVELOPMENT OF FEWER THAN 16 DWELLING UNITS, MAY QUALIFY AS COMMON OPEN SPACE, BUT SHALL NOT QUALIFY FOR MORE THAN 25 PERCENT OF THE TOTAL REQUIRED USABLE OPEN SPACE.  
 (II) PRIVATE OPEN SPACE. PRIVATE OPEN SPACE IS AN OPEN SPACE AREA WHICH IS CONTINUOUS TO AND IMMEDIATELY ACCESSIBLE FROM A SINGLE DWELLING UNIT AND WHICH MEETS ALL OF THE FOLLOWING REQUIREMENTS OF THE ZONES HEREIN SPECIFIED:  
 (1) IN THE RD 1.5 AND MORE RESTRICTIVE ZONES:  
 (I) PRIVATE OPEN SPACE SHALL BE LOCATED AT GRADE LEVEL OR THE FIRST HABITABLE ROOM LEVEL AND BE OPEN TO SKY. STRUCTURES MAY PROJECT NO MORE THAN THREE FEET INTO THE PRIVATE OPEN SPACE AREA, PROVIDED THERE IS A MINIMUM EIGHT FOOT VERTICAL CLEARANCE UNDER THE PROJECTION, EXCEPT AS PROVIDED IN SECTION 12.22 C.20.(b).  
 (II) PRIVATE OPEN SPACE SHALL BE ENCLOSED BY A SOLID FENCE AT LEAST FOUR FEET IN HEIGHT AND  
 (III) THE PRIVATE OPEN SPACE AREAS SHALL HAVE NO HORIZONTAL DIMENSION LESS THAN EIGHT FEET WHEN MEASURED PERPENDICULAR FROM ANY POINT ON EACH OF THE BOUNDARIES OF THE OPEN SPACE AREA AND CONTAIN A MINIMUM OF 100 SQUARE FEET PER DWELLING UNIT SHALL BE ATTRIBUTABLE TO THE TOTAL REQUIRED OPEN SPACE.

**OPEN SPACE SUMMARY**

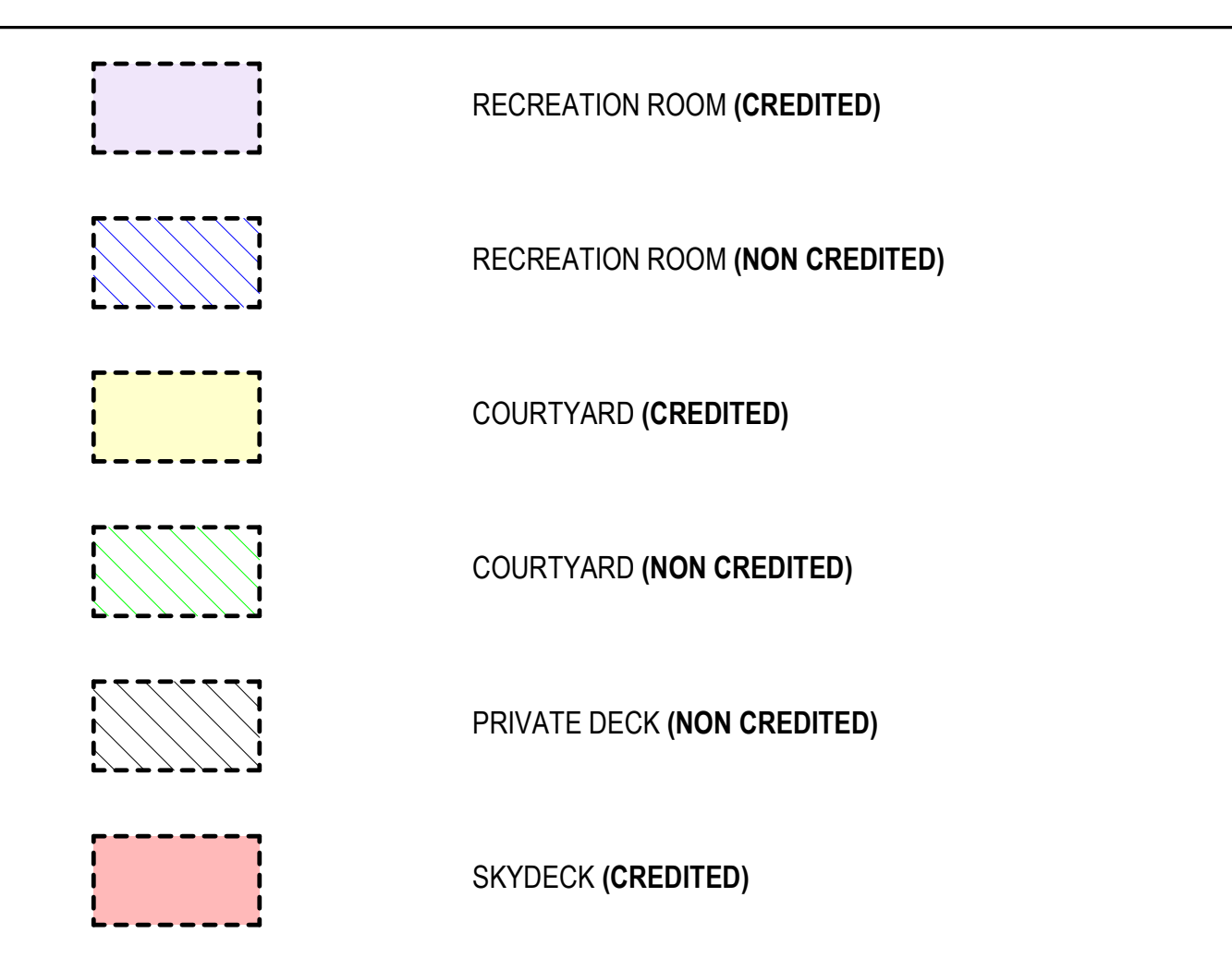
UNIT TYPE	NO. UNITS	HABITABLE RMS.	REQ'D SF	TOTAL REQ'D
STUDIO	10	2	100	1,000
1 BR	35	2	100	3,500
2 BR	27	3	125	3,375
3 BR	5	4	175	875
	77			
TOTAL OPEN SPACE REQUIRED (PER LAMC)				8,750
75% REDUCTION:				2,188
* RECREATION ROOM SIZE MEETS THE 600 SF MIN. SIZE REQUIREMENTS.				
TOTAL CREDITED OPEN SPACE		% REQ.	% PROV.	AREA (SF)
PRIVATE DECKS		50% MAX.	0%	0
COMMON OPEN		50% MIN.	76%	745
SKY DECK				909
RECREATION ROOMS		25% MAX.	24%	178
FITNESS				178
AQUA LOUNGE				178
CREDITED				2,188
TOTAL NON CREDITED OPEN SPACE				
PRIVATE DECKS				2,101
COMMON OPEN				855
SKY DECK				0
RECREATION ROOMS				778
FITNESS				802
AQUA LOUNGE				793
NON CREDITED				5,328
TOTAL LANDSCAPE AREA REQUIRED		25%		414
TOTAL LANDSCAPE AREA PROVIDED		68%		1,127
TREES REQUIRED				19
TREES PROVIDED				20

**NOTES:**

PER LAMC 12.21 G.2.b AT LEAST 50% OF REQUIRED OPEN SPACE MUST BE COMMON:

- 50% OF PROVIDED USABLE OPEN SPACE IS COMMON OPEN SPACE.
- SEE LANDSCAPE DRAWINGS FOR MORE INFORMATION.

**GRAPHICS LEGEND**



**ARCHITECT**

**NEXT ARCHITECTURE**

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**CLIENT/OWNER**

**FLORES FUND, LLC**

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 SUITE 1900  
 LOS ANGELES, CA. 90017

**PROJECT**

**THIRD + FLORES**

8339 W. 3RD STREET  
 LOS ANGELES CA. 90048

**ISSUES & REVISIONS**

NO.	DATE	DESCRIPTION

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ISSUE AS: HOH REVIEW  
 ISSUE DATE: 12/11/2023  
 SCALE: As indicated  
 PROJECT NUMBER: 2021-114  
 SHEET TITLE

**CODE ANALYSIS - OPEN SPACE**

SHEET NUMBER

**A060**







D

C

B

A

**F.A.R. SUMMARY**

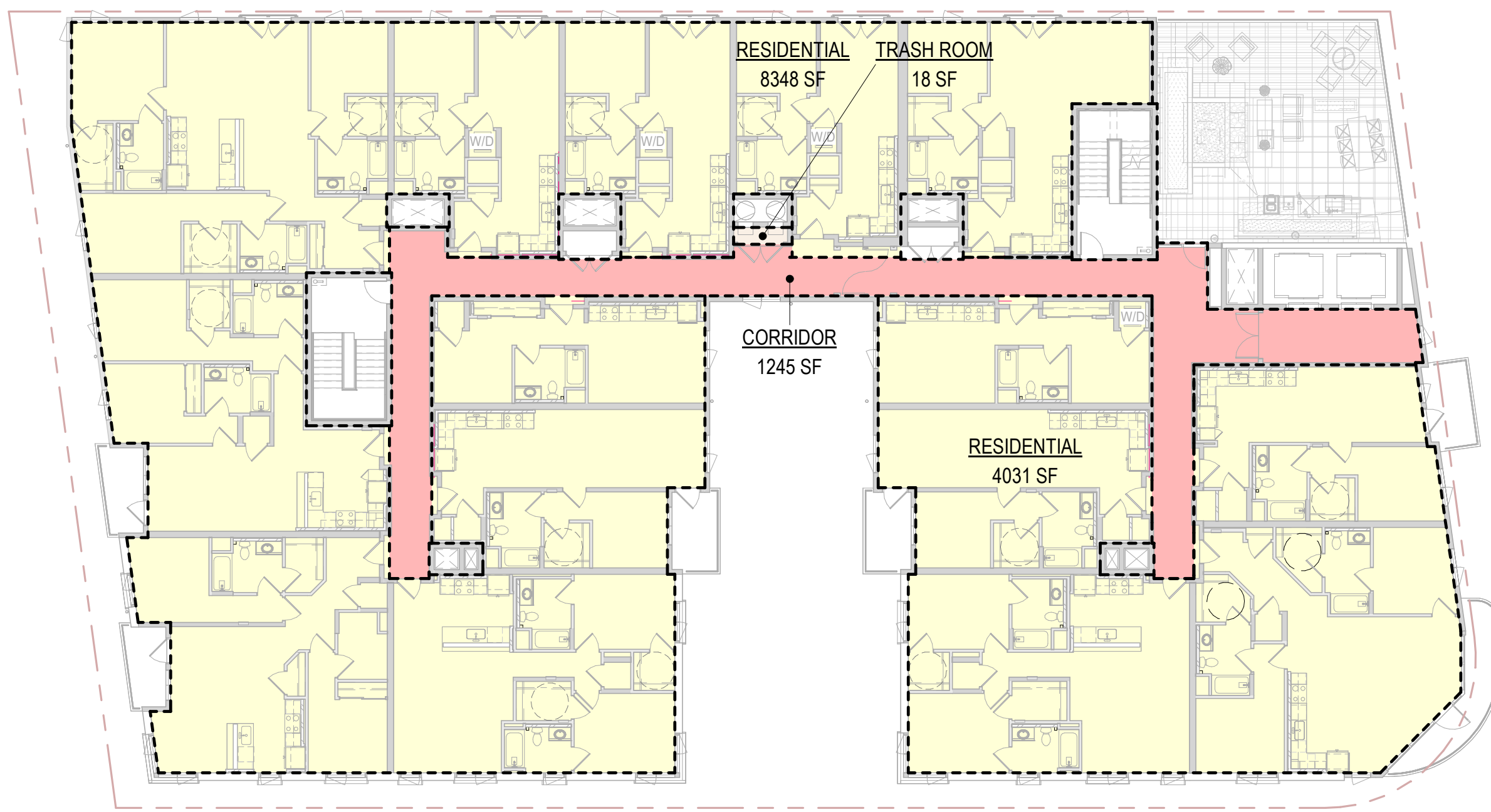
<b>FLOOR AREA SUMMARY</b> (ZONING SF. PER LAMC SEC 12.03)	
<b>LEVEL 1</b>	<b>12,621 SF</b>
LOBBY	630 SF
RETAIL	11,026 SF
CORRIDOR	756 SF
TRASH ROOM	209 SF
<b>LEVEL 2</b>	<b>1,388 SF</b>
ELEVATOR LOBBY	571 SF
CIRCULATION	344 SF
STORAGE	200 SF
GARAGE	273 SF
<b>LEVEL 3</b>	<b>5,245 SF</b>
ELEVATOR LOBBY	560 SF
STORAGE	1,160 SF
BUSINESS LOUNGE	960 SF
RESIDENTIAL AREA	1,502 SF
CIRCULATION	962 SF
GARAGE	101 SF
<b>LEVEL 4</b>	<b>14,559 SF</b>
FITNESS / LOUNGE	2,002 SF
RESIDENTIAL AREA	11,295 SF
CORRIDOR	1,244 SF
TRASH ROOM	18 SF
<b>LEVEL 5</b>	<b>13,532 SF</b>
RESIDENTIAL AREA	12,270 SF
CORRIDOR	1,244 SF
TRASH ROOM	18 SF
<b>LEVEL 6</b>	<b>14,540 SF</b>
RESIDENTIAL AREA	13,278 SF
CORRIDOR	1,244 SF
TRASH ROOM	18 SF
<b>LEVEL 7</b>	<b>14,540 SF</b>
RESIDENTIAL AREA	13,278 SF
CORRIDOR	1,244 SF
TRASH ROOM	18 SF
<b>LEVEL 8</b>	<b>13,641 SF</b>
RESIDENTIAL AREA	12,379 SF
CORRIDOR	1,244 SF
TRASH ROOM	18 SF
<b>TOTAL*</b>	<b>90,066 SF</b>

**NOTES**

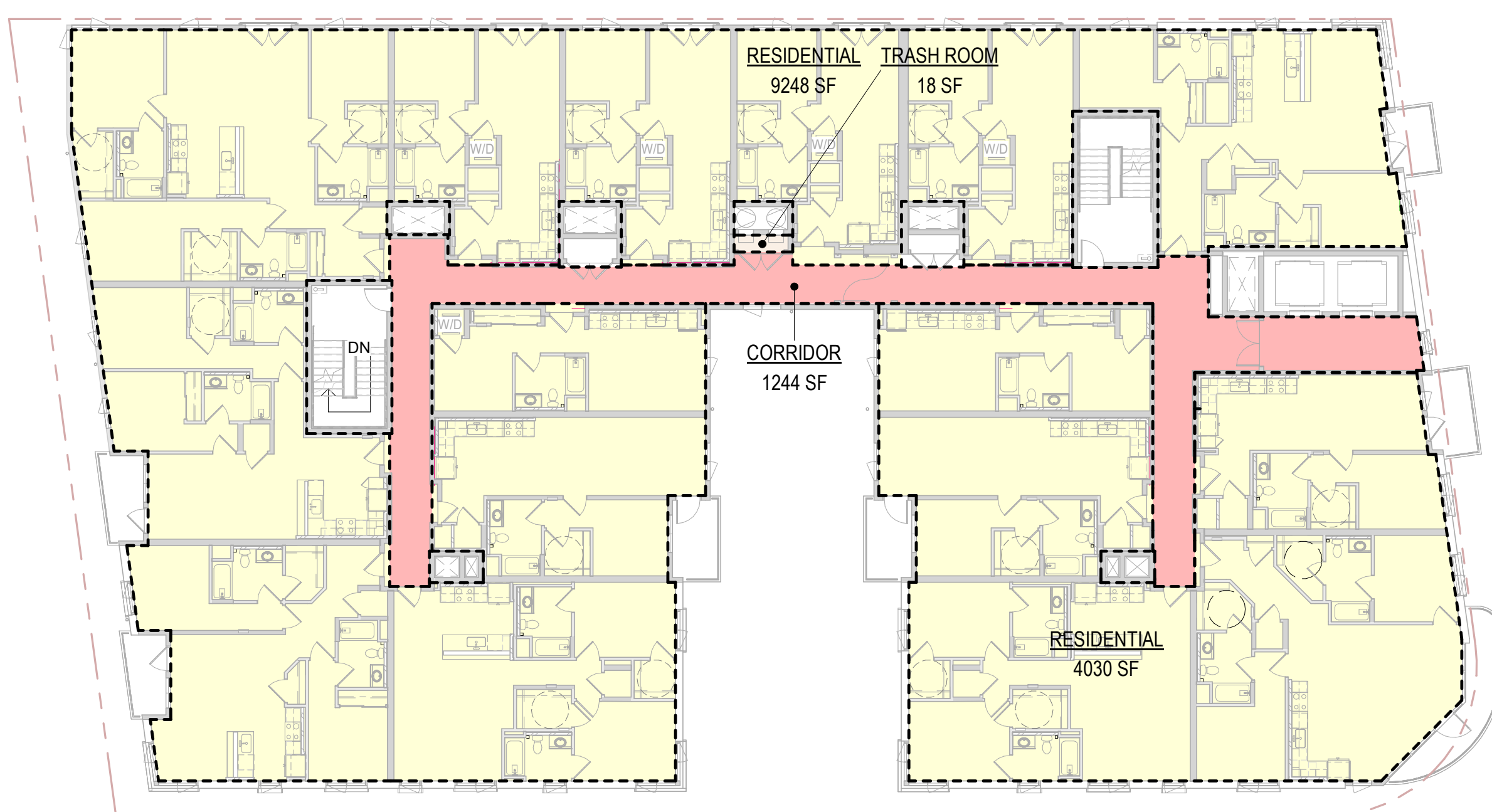
- 1. PER LAMC SEC 12.03, THE AREA CONFINED WITHIN THE EXTERIOR WALLS, NOT INCLUDING EXTERIOR WALLS, STAIRWAYS, SHAFTS, ROOMS HOUSING BUILDING OPERATING EQUIPMENT, OR PARKING AREAS. ALSO EXCLUDES SPACE DEDICATED FOR BIKE PARKING.
- 2. PER LOS ANGELES ZONING CODE MANUAL PAGE 46 AND PAGES 237-239, AREAS ON BALCONIES SURROUNDED BY THREE WALLS OR FARTHER THAN 5'-0" FROM THE EDGE OF THE BALCONY ARE TO BE COUNTED AS FLOOR AREA. PER ZAI-2007-3430, ALL NON-RECESSED PORTIONS OF BALCONIES ARE EXCLUDED FROM BEING COUNTED AS FLOOR AREA.

**ZONING CODE FLOOR AREA CALCULATION METHOD:**

FLOOR AREA IS THAT AREA IN SQUARE FEET CONFINED WITHIN THE EXTERIOR WALLS OF A BUILDING, BUT NOT INCLUDING THE AREAS OF THE FOLLOWING: EXTERIOR WALLS, STAIRWAYS, SHAFTS, ROOMS HOUSING BUILDING-OPERATING EQUIPMENT OR MACHINERY, PARKING AREAS WITH ASSOCIATED DRIVEWAYS AND RAMPS, SPACE FOR THE LANDING AND STORAGE OF HELICOPTERS AND STORAGE AREAS.



F.A.R. EXHIBIT - LEVEL 8 | 2  
1/16" = 1'-0"



F.A.R. EXHIBIT - LEVEL 7 | 1  
1/16" = 1'-0"

ARCHITECT



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CLIENT/OWNER

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PROJECT

THIRD + FLORES

8339 W. 3RD STREET  
LOS ANGELES CA. 90048

ISSUES & REVISIONS

NO.	DATE	DESCRIPTION

**NOT FOR CONSTRUCTION**

- ISSUE AS: HOH REVIEW
- ISSUE DATE: 12/11/2023
- SCALE: 1/16" = 1'-0"
- PROJECT NUMBER: 2021-114
- SHEET TITLE

**CODE ANALYSIS - FLOOR AREA RATIO**

SHEET NUMBER

A061A

5

4

3

2

EGRESS NOTES

- EXIT ACCESS TRAVEL DISTANCES SHOWN ARE MEASURED FROM THE MOST REMOTE POINT WITHIN EACH DWELLING UNIT TO EITHER AN EXTERIOR EXIT STAIRWAY OR EXIT DISCHARGE AS PER CBC SECTION 1016.
- THE MAXIMUM LENGTHS OF EXIT ACCESS TRAVEL PER OCCUPANCY ARE LISTED BELOW AS PER CBC TABLE 1017.2:
  - A: 250 FEET (WITH SPRINKLER SYSTEM)
  - B: 300 FEET (WITH SPRINKLER SYSTEM)
  - M: 250 FEET (WITH SPRINKLER SYSTEM)
  - R: 250 FEET (WITH SPRINKLER SYSTEM)
  - S-2: 400 FEET (WITH SPRINKLER SYSTEM)
- EGRESS THROUGH AN INTERVENING SPACE SHALL COMPLY WITH CBC SECTION 1016.2
- THE COMMON PATH OF EGRESS TRAVEL SHALL NOT EXCEED THE FOLLOWING DISTANCES PER CBC TABLE 1006.2.1:
  - A: 75 FEET (FIXED SEATING: 30 FEET, OCC. LOAD > 50)
  - B: 75 FEET (100 FEET, OCCUPANT LOAD < 30 OR SPRINKLERED)
  - M: 75 FEET\*
  - R-2: 125 FEET\*
  - S-2: 75 FEET (100 FEET, OCCUPANT LOAD < 30 OR SPRINKLERED)
- SEE ELECTRICAL DRAWINGS AND ARCHITECTURAL REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION REGARDING EXIT SIGNS.
- EXIT ACCESS (CBC SECTION 202 DEFINITIONS): THAT PORTION OF A MEANS OF EGRESS SYSTEM THAT LEADS FROM ANY OCCUPIED PORTION OF A BUILDING OR STRUCTURE TO AN EXIT.
- MEANS OF EGRESS SHALL HAVE A CEILING HEIGHT > OR = 7'-6" PER CBC SECTION 1003.2.

ARCHITECT



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NO.	DATE	DESCRIPTION

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ISSUE AS: HOH REVIEW

ISSUE DATE: 12/11/2023

SCALE: As indicated

PROJECT NUMBER: 2021-114

SHEET TITLE

CODE ANALYSIS - EGRESS

SHEET NUMBER

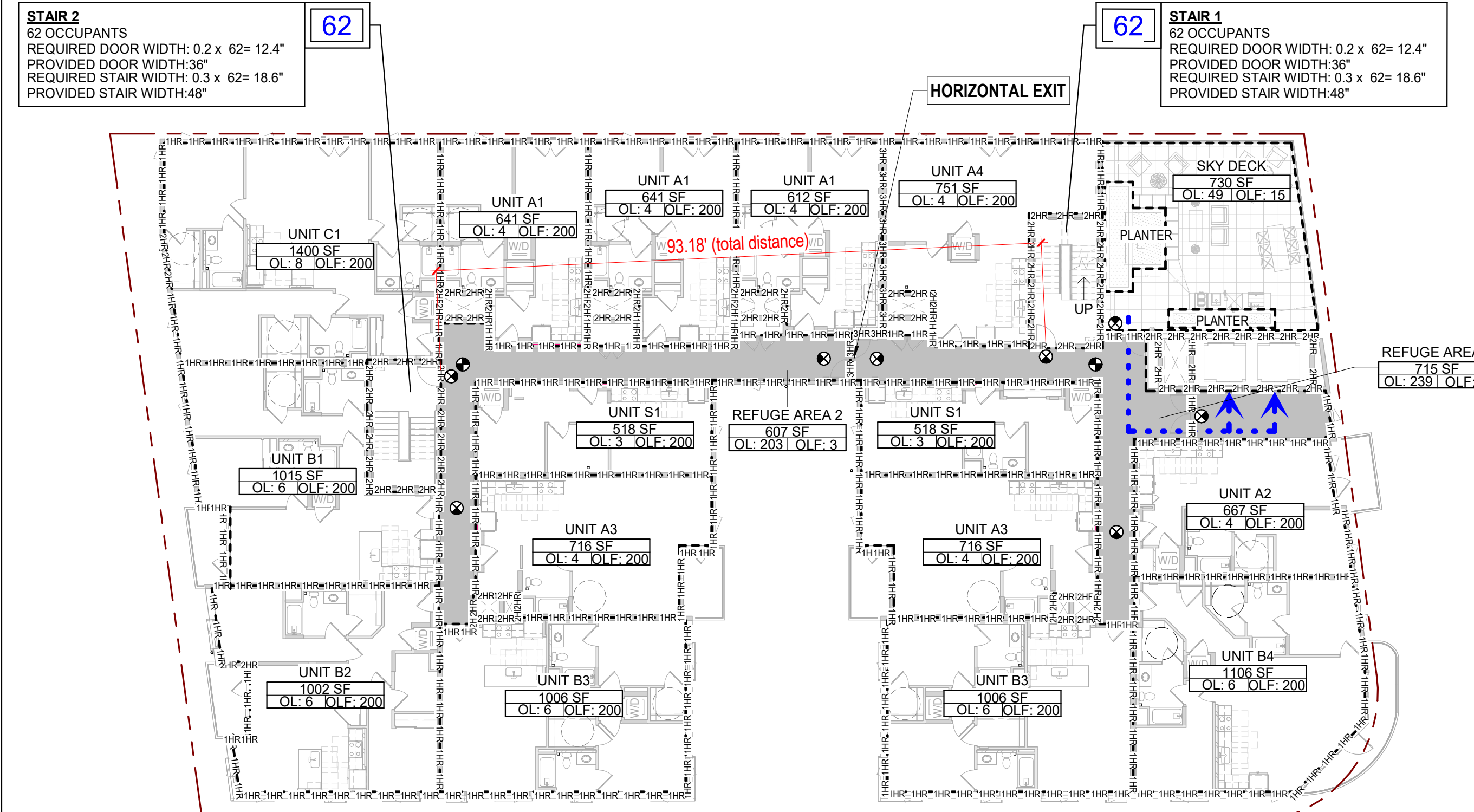
A062A

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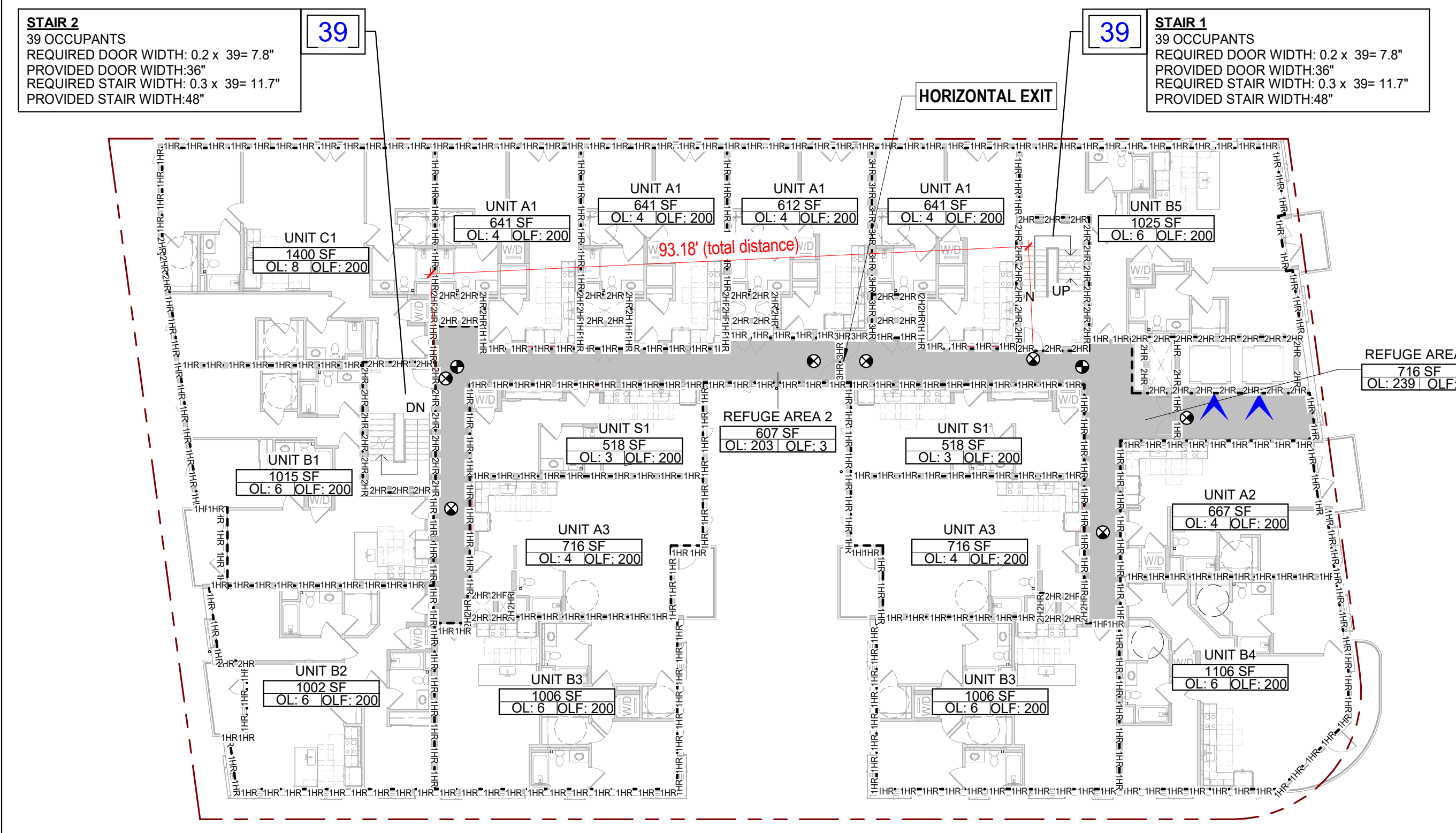
C

B

A



EGRESS PLAN - LEVEL 8 2 1/16" = 1'-0"



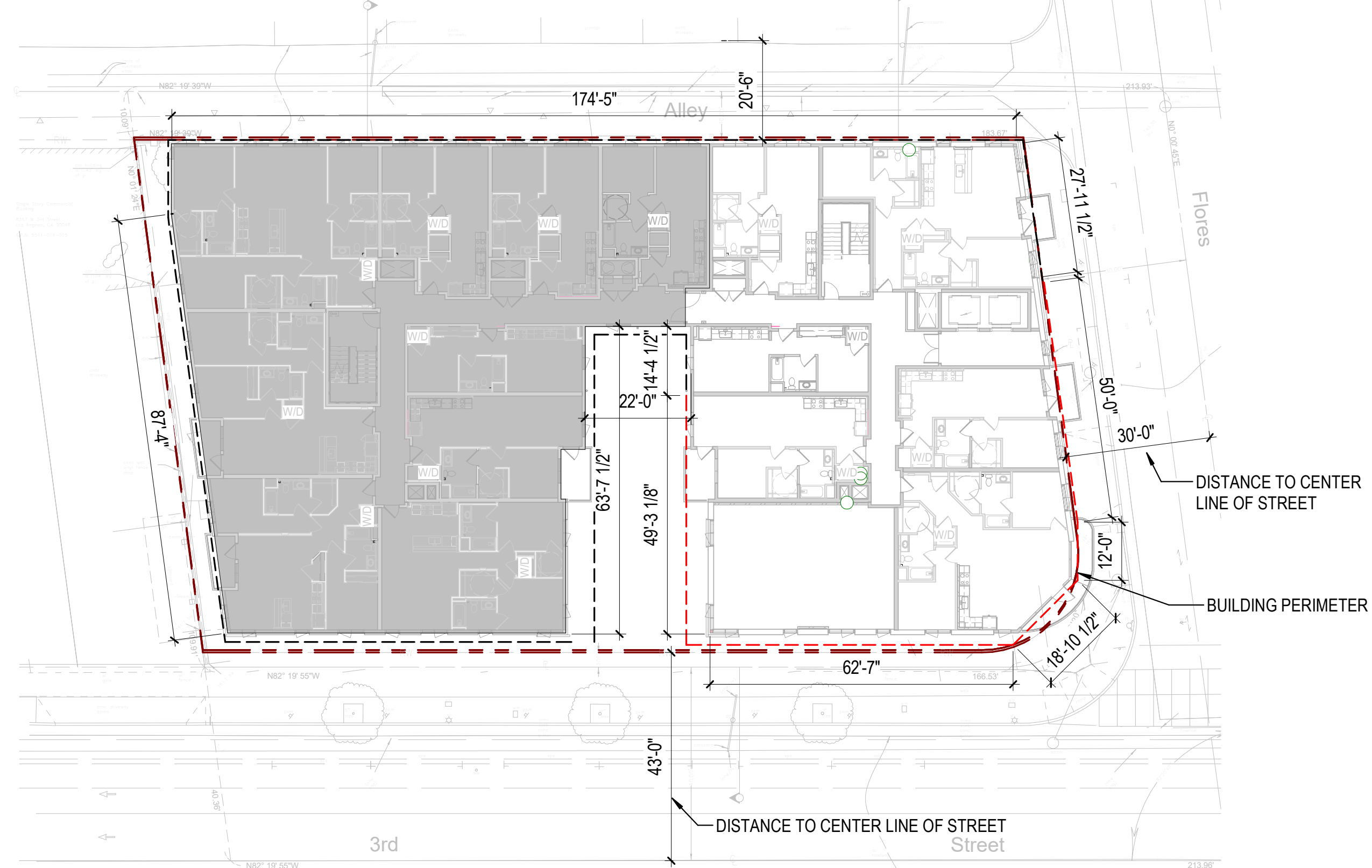
EGRESS PLAN - LEVEL 7 1 1/16" = 1'-0"

EGRESS PLAN LEGEND

- COMMON PATH OF EGRESS TRAVEL (CPET)  
MAXIMUM DISTANCES (CBC TABLE 1006.2.1):  
GROUP R-2: 125 FT  
GROUP S-2: 100 FT  
GROUP B: 100 FT  
GROUP A-3: 75 FT
- OVERALL DIAGONAL
- EXIT ACCESS TRAVEL DISTANCE (EATD) BETWEEN EXITS:  
MAXIMUM DISTANCES (CBC TABLE 1017.2):  
GROUP R-2: 250 FT  
GROUP S-2: 400 FT  
GROUP B: 300 FT  
GROUP A-3: 250 FT
- TRAVEL DISTANCE (TOTAL)
- HOSE PULL, TYPICAL
- ACCESSIBLE PATH OF TRAVEL
- ILLUMINATED EXIT SIGN, TYPICAL  
PROVIDE REFLECTIVE EXIT SIGN 18" AFF PER CBC SECTION 1013
- OCCUPANT LOAD  
# / # / #
- EXIT DISCHARGE PER CBC SECTION 1028
- WET STANDPIPE - CLASS I  
PER NFPA 14
- 1HR 1HR 1HR 1HR 1HR 1HR FIRE-RATED WALL (45 MINUTE)
- 2HR 2HR 2HR 2HR 2HR 2HR FIRE-RATED WALL (90 MINUTE)
- 3HR 3HR 3HR 3HR 3HR 3HR FIRE-RATED WALL (180 MINUTE)
- ROOM NAME  
# / # / #  
# / # / #
- ROOM TAG WITH OCCUPANT LOAD INFORMATION

- NOTES:
- WALLS, FLOORS, CEILING AND ROOF FIRE-RESISTANCE RATINGS ARE BASED ON THE FOLLOWING CBC CODES:  
CBC CHAPTER 6, SECTION 601, TABLE 601:  
FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS  
CBC CHAPTER 6, SECTION 602, TABLE 602:  
FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE  
CBC CHAPTER 7, ALL SECTIONS.
  - REFER TO SHEETS A062 EGRESS ANALYSIS SERIES FOR WALL FIRE RESISTANCE RATINGS.
  - REFER TO SHEETS A800A, A800B, A800C AND A800D FOR WALL TYPE ASSEMBLY DETAILS.
  - REFER TO SHEET A804 FOR ROOF/CEILING AND FLOOR/CEILING TYPES ASSEMBLY DETAILS.

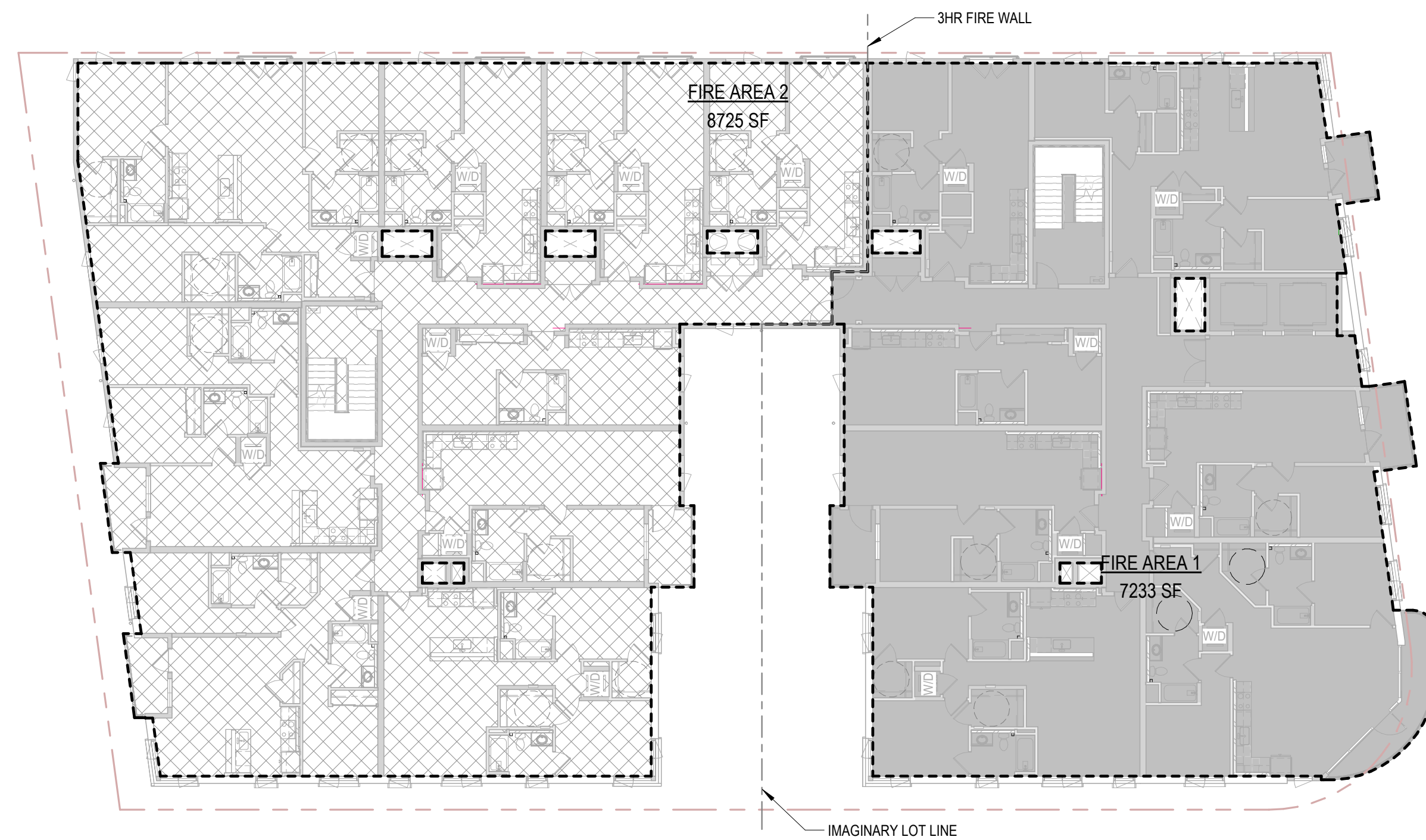




**FRONTAGE INCREASE DIAGRAM** 3  
3/64" = 1'-0"



**ALLOWABLE BUILDING AREA - LEVEL 8:** 2  
1/16" = 1'-0"



**ALLOWABLE BUILDING AREA - LEVEL 7:** 1  
1/16" = 1'-0"

**BUILDING AREA**

FIRE AREA 1		
LEVEL	NAME	AREA
LEVEL 4 CONC.	FIRE AREA 1	7,194.62 SF
LEVEL 5 FIN.	FIRE AREA 1	6,200.2 SF
LEVEL 6 FIN.	FIRE AREA 1	7,232.63 SF
LEVEL 7 FIN.	FIRE AREA 1	7,232.63 SF
LEVEL 8 FIN.	FIRE AREA 1	5,935.44 SF
		33,795.51 SF

FIRE AREA 2		
LEVEL	NAME	AREA
LEVEL 4 CONC.	FIRE AREA 2	8,731.38 SF
LEVEL 5 FIN.	FIRE AREA 2	8,725.36 SF
LEVEL 6 FIN.	FIRE AREA 2	8,725.33 SF
LEVEL 7 FIN.	FIRE AREA 2	8,725.33 SF
LEVEL 8 FIN.	FIRE AREA 2	8,512.42 SF
		43,419.81 SF

$A_0 = [A_1 + (NS \times l)] \times S_0$   
 $A_0 = [24,000 + (24,000 \times .50)] \times 2$   
 $A_0 = [24,000 + (12,000)] \times 2$   
 $A_0 = [36,000] \times 2$   
 $A_0 = 72,000$

**FRONTAGE INCREASE:**  
**BUILDING PERIMETER AT FIRE AREA 1 = 193'-8"**  
**PERIMETER WITH CLEAR OPEN SPACE GREATER THAN 30'-0" = 143'-5"**  
**FRONTAGE INCREASE FACTOR 0.50**

$A_0 = [A_1 + (NS \times l)] \times S_0$   
 $A_0 = [24,000 + (24,000 \times .33)] \times 2$   
 $A_0 = [24,000 + (7,900)] \times 2$   
 $A_0 = [31,900] \times 2$   
 $A_0 = 63,800$

**BUILDING PERIMETER AT FIRE AREA 2 = 476'-9"**  
**PERIMETER WITH CLEAR OPEN SPACE GREATER THAN 20'-0" = 272'-1"**  
**PERCENTAGE OF PERIMETER = 57%**  
**FRONTAGE INCREASE FACTOR = 0.33**

**BUILDING AREA DEFINITION PER CBC CHAPTER 2:**  
 "THE AREA INCLUDED WITHIN SURROUNDING EXTERIOR WALLS... EXCLUSIVE OF VENT SHAFTS AND COURTS. AREAS OF THE BUILDING NOT PROVIDED WITH SURROUNDING WALLS SHALL BE INCLUDED IN THE BUILDING AREA IF SUCH AREAS ARE INCLUDED WITHIN THE HORIZONTAL PROJECTION OF THE ROOF OR FLOOR ABOVE."

**ALLOWABLE AREA DETERMINATION**

**CBC 506.2.1 SINGLE-OCCUPANCY BUILDINGS**

THE ALLOWABLE AREA OF EACH STORY OF A SINGLE-OCCUPANCY BUILDING SHALL BE DETERMINED IN ACCORDANCE WITH EQUATION 5-1:

$A_0 = [A_1 + (NS \times l)]$  (EQUATION 5-1)

- $A_0$  = ALLOWABLE AREA ( SQUARE FEET)
- $A_1$  = TABULAR ALLOWABLE AREA FACTOR (NS, S1, S13R or S13D VALUE, AS APPLICABLE) IN ACCORDANCE WITH TABLE 506.2.
- $NS$  = TABULAR ALLOWABLE AREA FACTOR IN ACCORDANCE WITH TABLE 506.2 FOR NONSPRINKLERED BUILDING (REGARDLESS OF WHETHER THE BUILDING IS SPRINKLERED).
- $l$  = AREA FACTOR INCREASE DUE TO FRONTAGE (PERCENT) AS CALCULATED IN ACCORDANCE WITH SECTION 506.3.

THE ALLOWABLE AREA PER STORY OF A SINGLE-OCCUPANCY BUILDING WITH A MAXIMUM OF THREE STORIES ABOVE GRADE SHALL BE DETERMINED BY EQUATION 5-1. THE TOTAL ALLOWABLE AREA OF A SINGLE-OCCUPANCY BUILDING MORE THAN THREE STORIES ABOVE GRADE PLANE SHALL BE DETERMINED IN ACCORDANCE WITH EQUATION 5-2.

$A_0 = [A_1 + (NS \times l)] \times S_0$  (EQUATION 5-2)

where:

- $A_0$  = ALLOWABLE AREA ( SQUARE FEET)
- $A_1$  = TABULAR ALLOWABLE AREA FACTOR (NS, S13R, S13D or SM VALUE, AS APPLICABLE) IN ACCORDANCE WITH TABLE 506.2.
- $NS$  = TABULAR ALLOWABLE AREA FACTOR IN ACCORDANCE WITH TABLE 506.2 FOR NONSPRINKLERED BUILDING (REGARDLESS OF WHETHER THE BUILDING IS SPRINKLERED).
- $l$  = AREA FACTOR INCREASE DUE TO FRONTAGE (PERCENT) AS CALCULATED IN ACCORDANCE WITH SECTION 506.3.
- $S_0$  = 4 WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.2.

THE ACTUAL AREA OF ANY INDIVIDUAL FLOOR SHALL NOT EXCEED THE ALLOWABLE AREA PER EQUATION 5-1.

**CBC 506.2.2 MIXED-OCCUPANCY BUILDINGS**

THE ALLOWABLE AREA OF EACH STORY OF A MIXED-OCCUPANCY BUILDING SHALL BE DETERMINED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 508.3.2 FOR NONSEPARATED OCCUPANCIES AND SECTION 508.4.2 FOR SEPARATED OCCUPANCIES.

FOR BUILDINGS WITH MORE THAN THREE STORIES ABOVE GRADE PLANE, THE TOTAL BUILDING AREA SHALL BE SUCH THAT THE AGGREGATE SUM OF THE RATIOS OF THE ACTUAL AREA OF EACH STORY DIVIDED BY THE ALLOWABLE AREA OF SUCH STORIES, DETERMINED IN ACCORDANCE WITH EQUATION 5-3 BASED ON THE APPLICABLE PROVISIONS OF SECTION 508.1, SHALL NOT EXCEED THREE, PROVIDED THE AGGREGATE SUM OF THE RATIOS FOR PORTIONS OF MIXED-OCCUPANCY, MULTISTORY BUILDINGS CONTAINING A, E, H, I, L AND R OCCUPANCIES, HIGH-RISE BUILDINGS, AND OTHER APPLICATIONS LISTED IN SECTION 1.11 REGULATED BY THE OFFICE OF THE STATE FIRE MARSHAL, INCLUDING ANY OTHER ASSOCIATED NON-SEPARATED OCCUPANCIES, SHALL NOT EXCEED TWO.

$A_0 = [A_1 + (NS \times l)]$  (EQUATION 5-3)

- $A_0$  = ALLOWABLE AREA ( SQUARE FEET)
- $A_1$  = TABULAR ALLOWABLE AREA FACTOR (NS, S13R, S13D or SM VALUE, AS APPLICABLE) IN ACCORDANCE WITH TABLE 506.2.
- $NS$  = TABULAR ALLOWABLE AREA FACTOR IN ACCORDANCE WITH TABLE 506.2 FOR A NONSPRINKLERED BUILDING, REGARDLESS OF WHETHER THE BUILDING IS SPRINKLERED.
- $l$  = AREA FACTOR INCREASE DUE TO FRONTAGE (PERCENT) AS CALCULATED IN ACCORDANCE WITH SECTION 506.3.



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**FLORES FUND, LLC**

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**PROJECT**

**THIRD + FLORES**

8339 W. 3RD STREET  
 LOS ANGELES CA. 90048

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**CODE ANALYSIS - ALLOWABLE FLOOR AREA**

**A063A**









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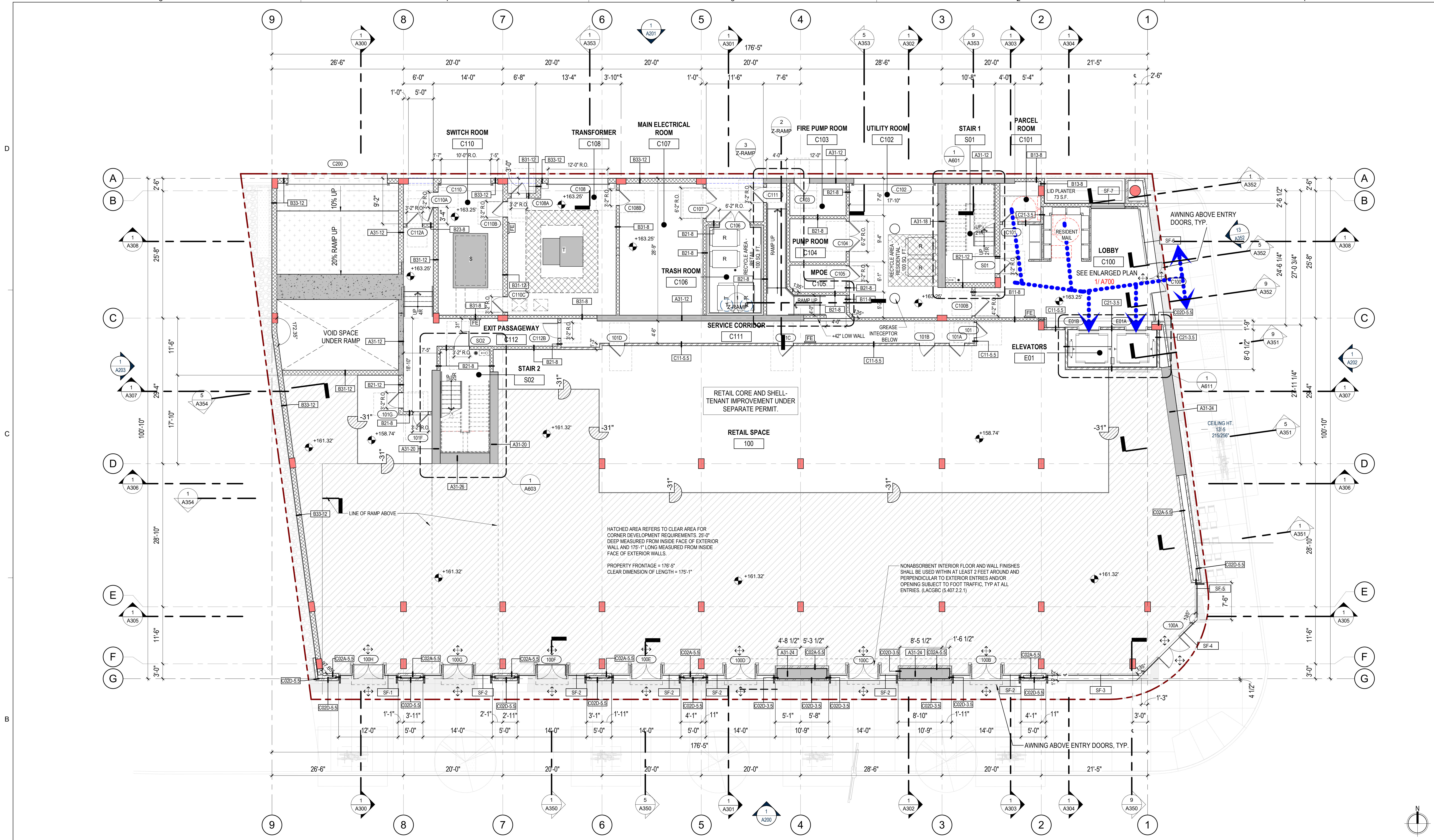
PROJECT NUMBER: 2021-114

SHEET TITLE

FLOOR PLAN - LEVEL 1

SHEET NUMBER

**A102**



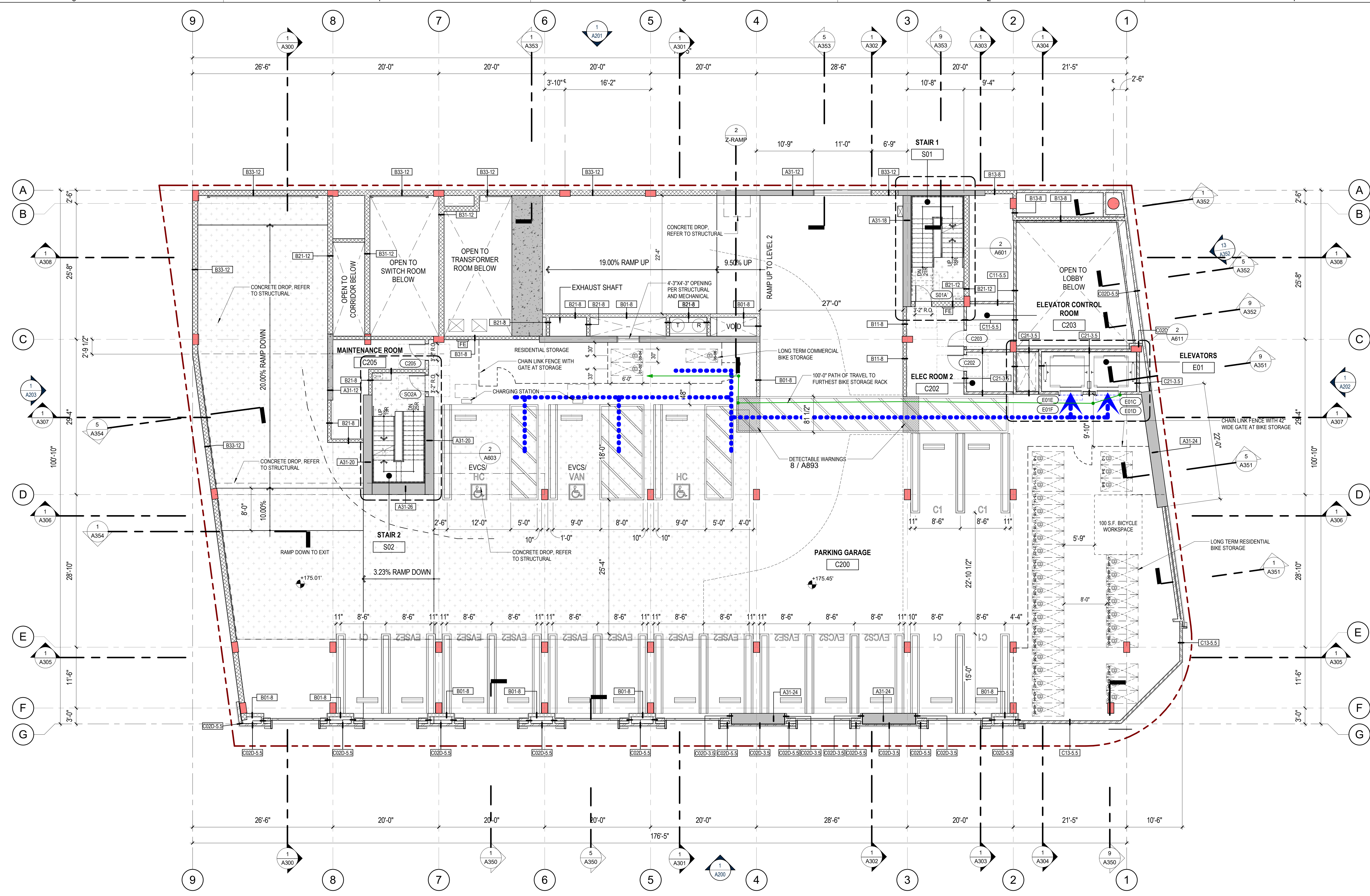
WALL TYPES FOR TYPE IA

A11-12	12\" 1HR-RATED CONCRETE WALL	B33-8	3HR-RATED CMU WALL - PLASTER	
A31-12	A31-24	3HR-RATED CONCRETE SHEAR WALL	C01-3.5	NON-RATED INTERIOR PARTITION WALL (MTL)
A33-12	A33-24	3HR-RATED CONCRETE WALL - PLASTER	C02A-3.5	NON-RATED FURRED WALL (MTL)
A33-20	A33-26	3HR-RATED CONCRETE WALL - PLASTER	C03-5.5	NON-RATED FURRED WALL (MTL) - PLASTER
B01-8	NON-RATED CMU WALL	C11-5.5	1HR-RATED PARTITION WALL (MTL)	
B11-8	1HR-RATED CMU WALL	C13-5.5	1HR-RATED EXTERIOR WALL (MTL) - PLASTER	
B21-8	2HR-RATED CMU WALL	C21-3.5	2HR-RATED FIRE BARRIER WALL (MTL)	
B23-8	2HR-RATED CMU WALL - PLASTER			
B31-8	3HR-RATED CMU WALL			

REFER TO SHEET A100 FOR PLAN NOTES  
REFER TO A400 SERIES FOR UNIT PLAN INFORMATION

NOTES:  
1. REFER TO SHEETS A800A, A800B AND A800C FOR WALL TYPE ASSEMBLY DETAILS.  
2. REFER TO SHEETS A062 AND A062A FOR WALL TYPE FIRE RATINGS.

Table with 3 columns: NO., DATE, DESCRIPTION. The table is currently empty.



FLOOR PLAN - LEVEL 2 1  
1/8" = 1'-0"

PARKING TABULATION - LEVEL 2

SEE 'PARKING BREAK DOWN' ON SHEET A000 FOR REQUIRED PARKING, PARKING TOTALS, AND PARKING SPACE STANDARDS

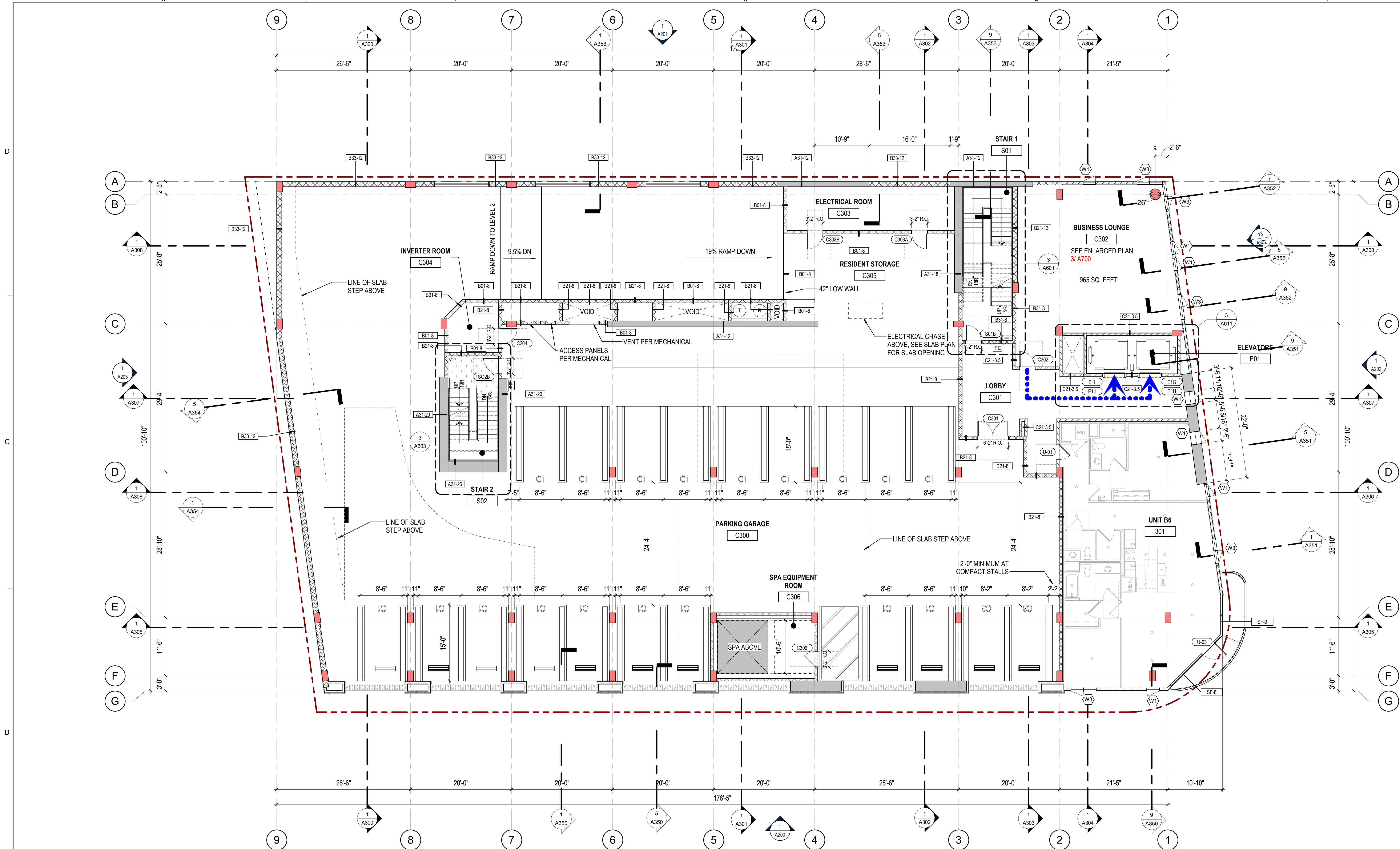
Table with 2 columns: Category and Spacing. Categories include LEVEL 2 PARKING PROVIDED (ALL COMMERCIAL), ACCESSIBLE SPACES, and STANDARD SPACES.

WALL TYPES FOR TYPE IA

Table with 3 columns: Wall Type Code, Description, and Wall Type Code. Lists various wall types such as 12" 1HR-RATED CONCRETE WALL, 3HR-RATED CONCRETE SHEAR WALL, etc.

NOTES:  
1. REFER TO SHEETS A800A, A800B AND A800C FOR WALL TYPE ASSEMBLY DETAILS.  
2. REFER TO SHEETS A062 AND A062A FOR WALL TYPE FIRE RATINGS.

REFER TO SHEET A100 FOR PLAN NOTES  
REFER TO A400 SERIES FOR UNIT PLAN INFORMATION



FLOOR PLAN - LEVEL 3 1  
1/8" = 1'-0"

PARKING TABULATION - LEVEL 3

SEE 'PARKING BREAK DOWN' ON SHEET A000 FOR REQUIRED PARKING, PARKING TOTALS, AND PARKING SPACE STANDARDS  
LEVEL 3 PARKING PROVIDED (ALL COMMERCIAL) 20 SPACES TOTAL  
EV SPACES 0 SPACES  
ACCESSIBLE SPACES 0 SPACES  
STANDARD SPACES 0 SPACES  
COMPACT SPACES 20 SPACES  
C1 COMPACT 18 SPACES  
C3 COMPACT 2 SPACES

WALL TYPES FOR TYPE IA

A11-12	12" 1HR-RATED CONCRETE WALL	B33-8	3HR-RATED CMU WALL - PLASTER
A31-12	A31-24 3HR-RATED CONCRETE SHEAR WALL	C01-3.5	NON-RATED INTERIOR PARTITION WALL (MTL)
A33-12	A33-24 3HR-RATED CONCRETE WALL - PLASTER	C02A-3.5	NON-RATED FURRED WALL (MTL)
A33-20	A33-26 3HR-RATED CONCRETE WALL - PLASTER	C03-5.5	NON-RATED FURRED WALL (MTL) - PLASTER
B01-8	NON-RATED CMU WALL	C11-5.5	1HR-RATED PARTITION WALL (MTL)
B11-8	1HR-RATED CMU WALL	C13-5.5	1HR-RATED EXTERIOR WALL (MTL) - PLASTER
B21-8	2HR-RATED CMU WALL	C21-3.5	2HR-RATED FIRE BARRIER WALL (MTL)
B23-8	2HR-RATED CMU WALL - PLASTER		
B31-8	3HR-RATED CMU WALL		

REFER TO SHEET A100 FOR PLAN NOTES  
REFER TO A400 SERIES FOR UNIT PLAN INFORMATION

NOTES:  
1. REFER TO SHEETS A800A, A800B AND A800C FOR WALL TYPE ASSEMBLY DETAILS.  
2. REFER TO SHEETS A062 AND A062A FOR WALL TYPE FIRE RATINGS.

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ISSUES & REVISIONS

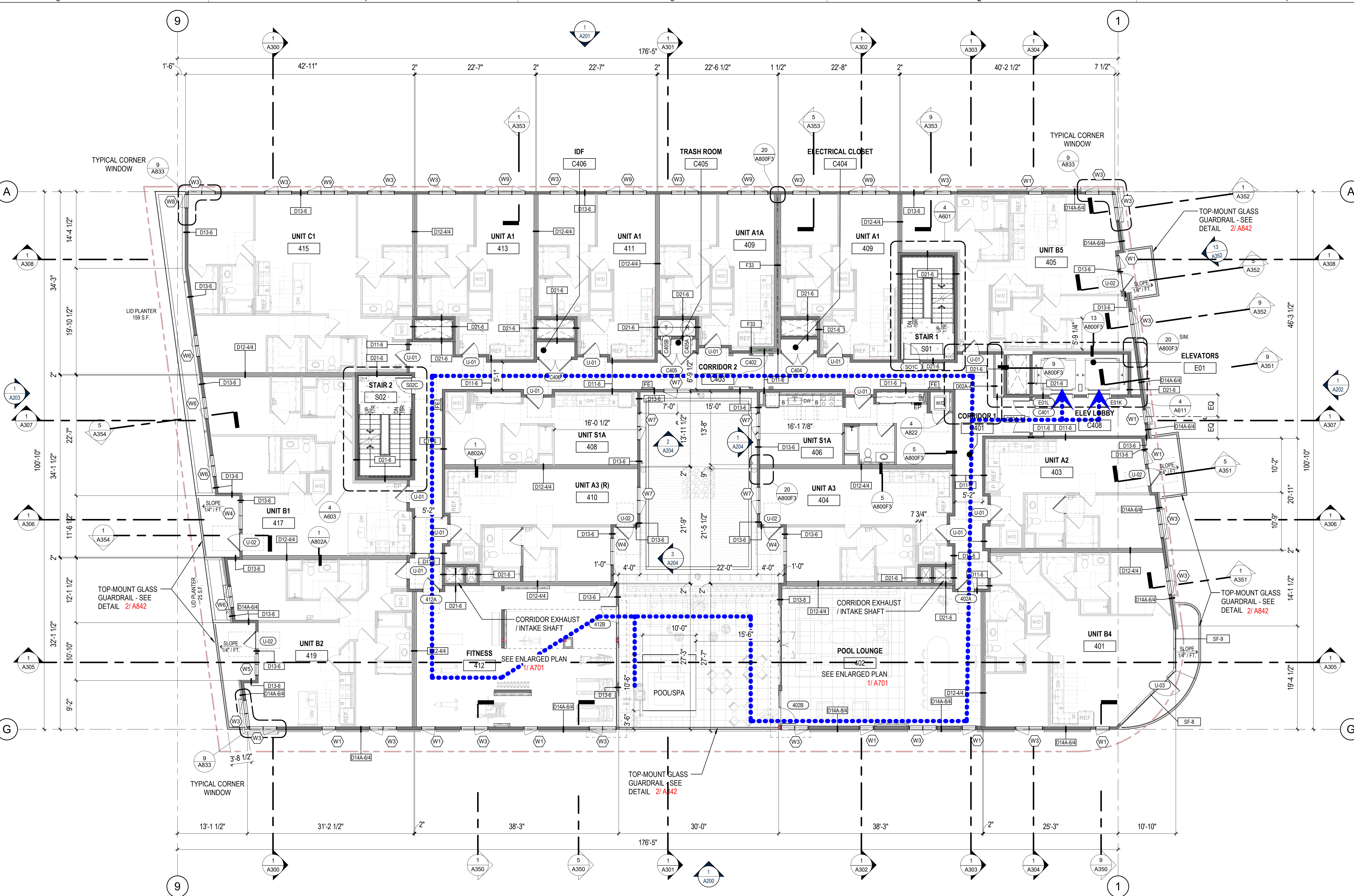
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FLOOR PLAN - LEVEL 3

SHEET NUMBER  
**A104**



**ISSUES & REVISIONS**

NO.	DATE	DESCRIPTION

FLOOR PLAN - LEVEL 4 **1**  
 1/8" = 1'-0"

**WALL TYPES FOR TYPE IIIA**

	D01-4	NON-RATED INTERIOR PARTITION WALL (WD)		D13-6	1HR-RATED EXTERIOR WALL (WD) - PLASTER
	D01-6	NON-RATED INTERIOR PARTITION WALL (WD)		D21-6	2HR-RATED FIRE BARRIER WALL (WD)
	D01-8	NON-RATED INTERIOR PARTITION WALL (WD)		D22-4/4	2HR-RATED FIRE PARTITION DOUBLE WALL (WD)
	D02-4	NON-RATED FURRED WALL (WD)		D23A-6/4	2HR-RATED EXTERIOR WALL WITH FURRING (WD) - PLASTER
	D03-6	NON-RATED EXTERIOR WALL (WD)		D14A-8/4	1HR EXTERIOR WALL WITH FURRING (WD) - FIBER CEMENT SIDING/PANEL
	D11-6	1HR-RATED FIRE PARTITION WALL (WD)			
	D12-4/4	1HR-RATED FIRE PARTITION DOUBLE WALL (WD)			
	D13-4	1HR-RATED EXTERIOR WALL (WD) - PLASTER			

**NOTES:**  
 1. REFER TO SHEETS A800A, A800B AND A800C FOR WALL TYPE ASSEMBLY DETAILS.  
 2. REFER TO SHEETS A062 AND A062A FOR WALL TYPE FIRE RATINGS.

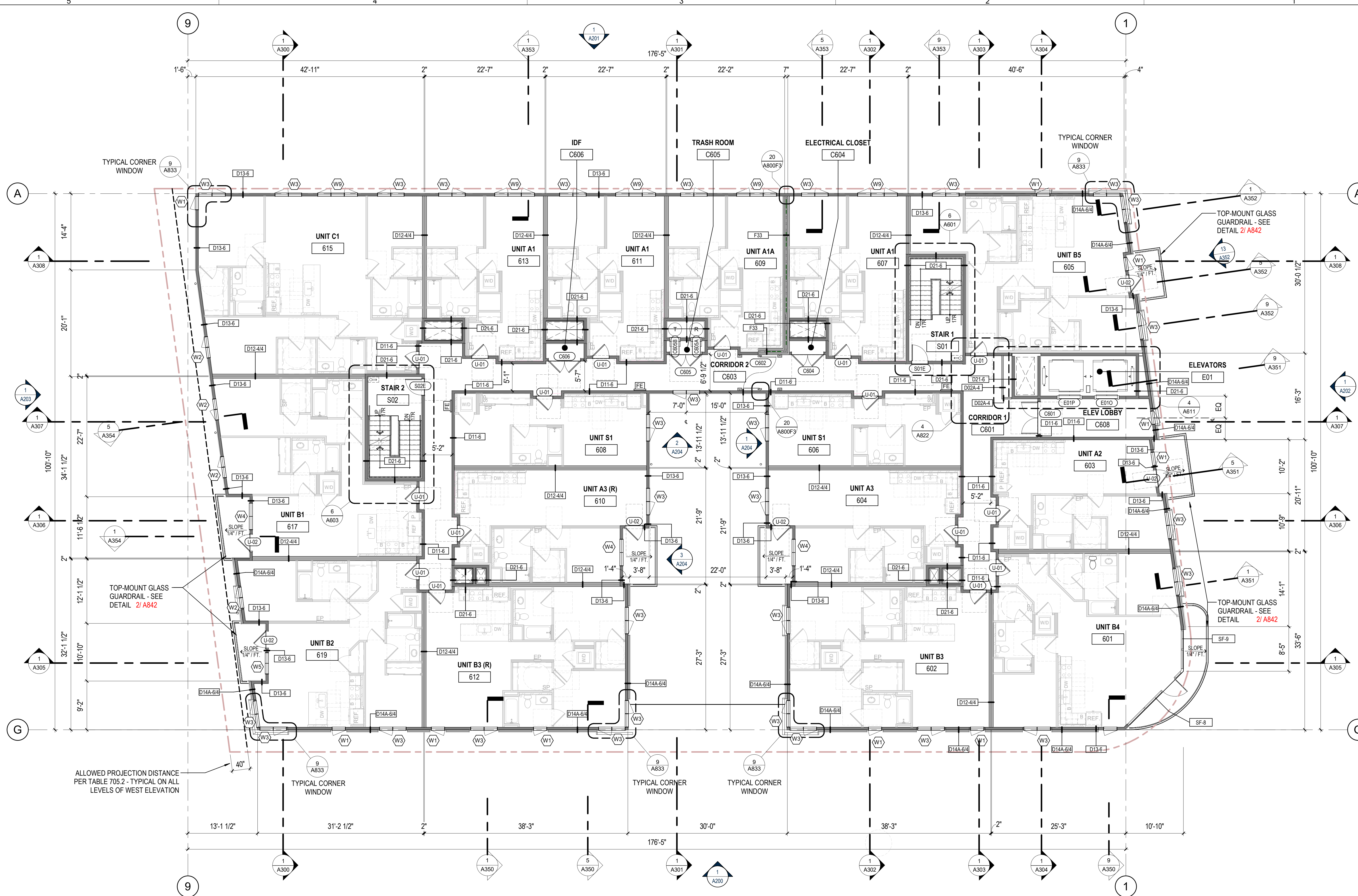
REFER TO SHEET A100 FOR PLAN NOTES  
 REFER TO A400 SERIES FOR UNIT PLAN INFORMATION

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FLOOR PLAN - LEVEL 4  
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**A105**  
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Table with 3 columns: NO., DATE, DESCRIPTION. The table is currently empty.



ALLOWED PROJECTION DISTANCE PER TABLE 705.2 - TYPICAL ON ALL LEVELS OF WEST ELEVATION

LEVEL 6 FIN. 1  
1/8" = 1'-0"

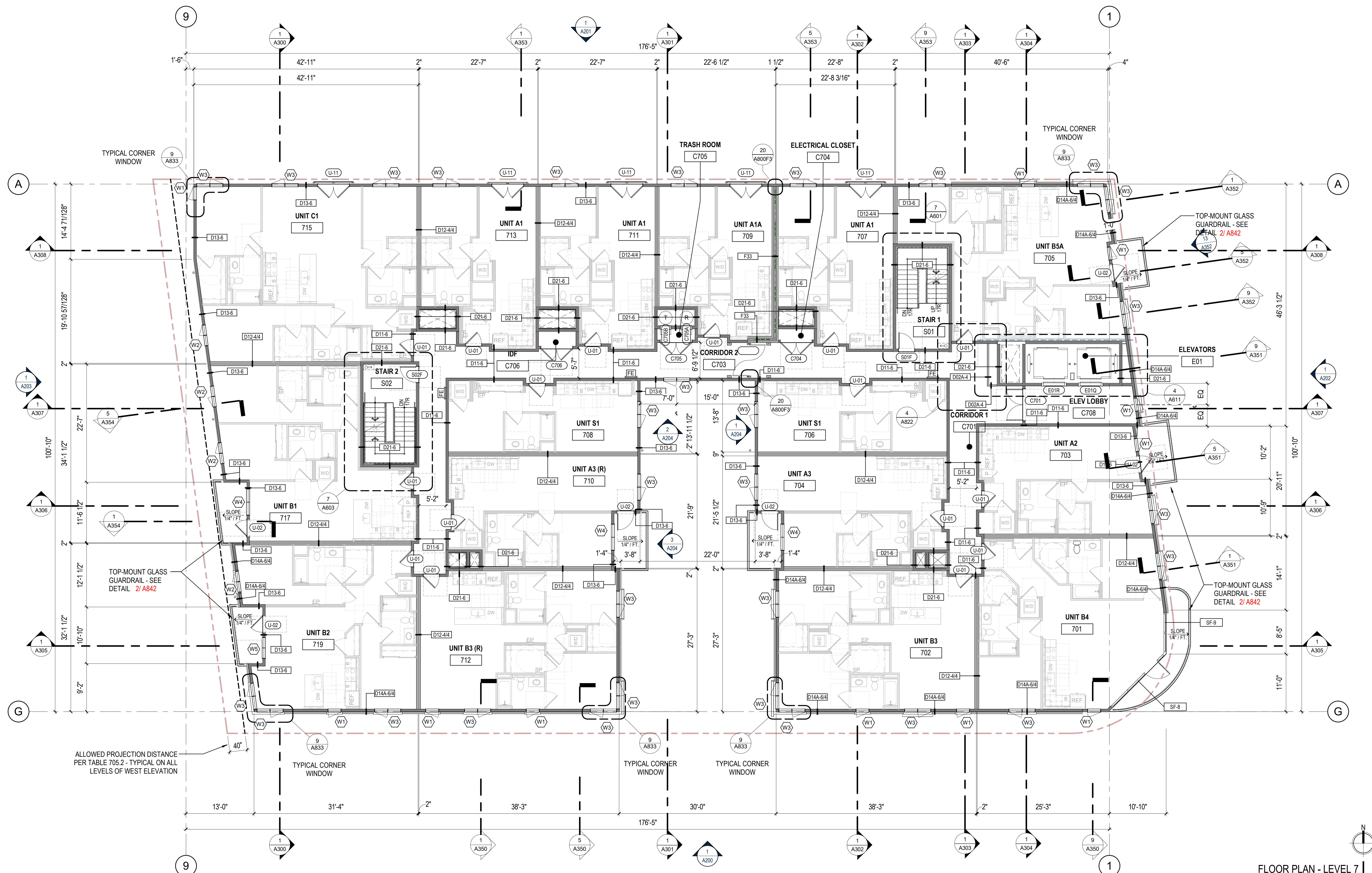
WALL TYPES FOR TYPE IIIA

Table defining wall types for Type IIIA with columns for wall type code, description, and graphic representation. Includes notes at the bottom.

REFER TO SHEET A100 FOR PLAN NOTES  
REFER TO A400 SERIES FOR UNIT PLAN INFORMATION

NO.	DATE	DESCRIPTION
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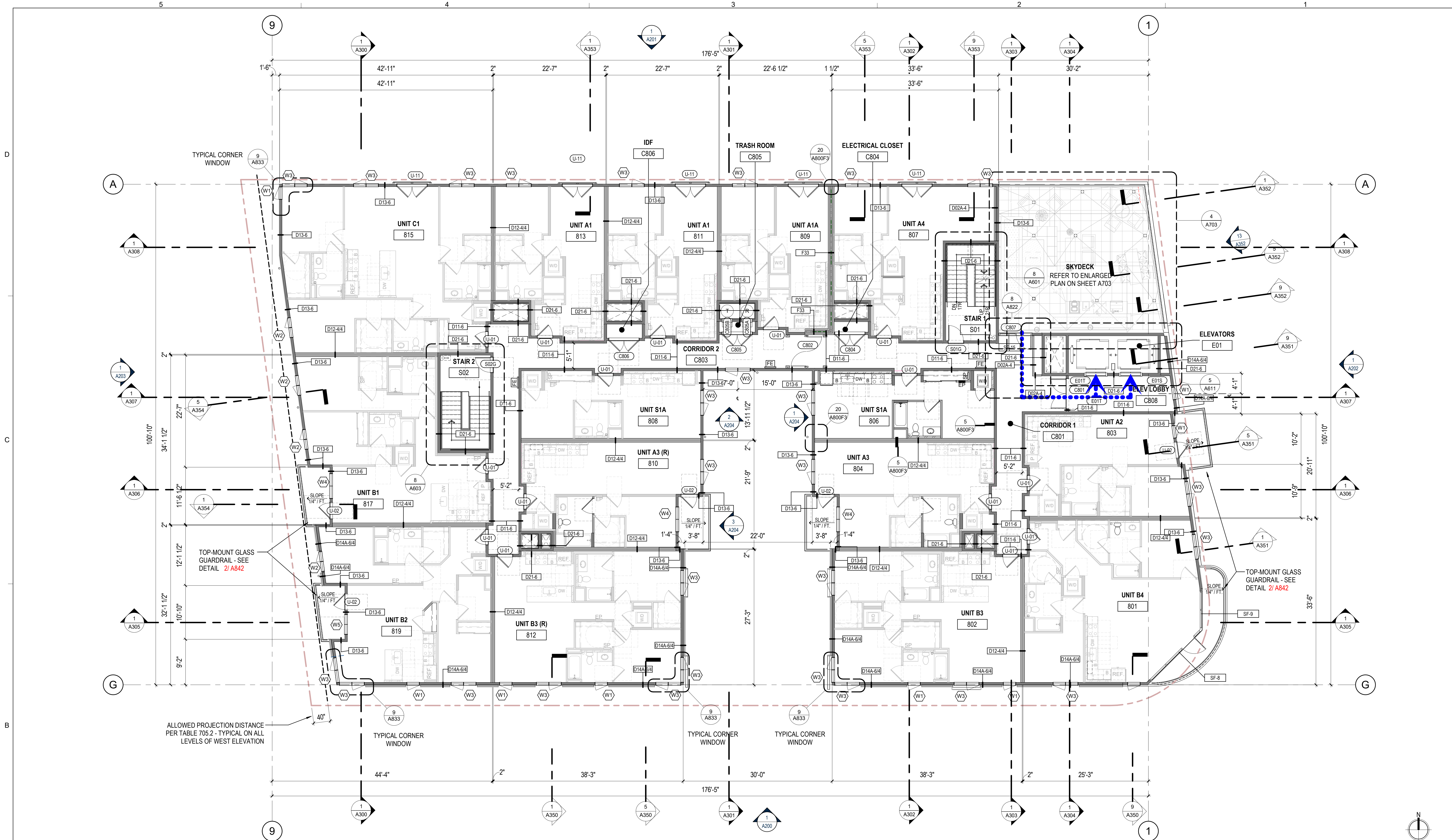
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WALL TYPES FOR TYPE IIIA

	D01-4	NON-RATED INTERIOR PARTITION WALL (WD)		D13-6	1HR-RATED EXTERIOR WALL (WD) - PLASTER
	D01-6	NON-RATED INTERIOR PARTITION WALL (WD)		D21-6	2HR-RATED FIRE BARRIER WALL (WD)
	D01-8	NON-RATED INTERIOR PARTITION WALL (WD)		D22-4/4	2HR-RATED FIRE PARTITION DOUBLE WALL (WD)
	D02-4	NON-RATED FURRED WALL (WD)		D23A-6/4	2HR-RATED EXTERIOR WALL WITH FURRING (WD) - PLASTER
	D03-6	NON-RATED EXTERIOR WALL (WD)		D14A-8/4	1HR EXTERIOR WALL WITH FURRING (WD) - FIBER CEMENT SIDING/PANEL
	D11-6	1HR-RATED FIRE PARTITION WALL (WD)			
	D12-4/4	1HR-RATED FIRE PARTITION DOUBLE WALL (WD)	NOTES: 1. REFER TO SHEETS A800A, A800B AND A800C FOR WALL TYPE ASSEMBLY DETAILS. 2. REFER TO SHEETS A062 AND A062A FOR WALL TYPE FIRE RATINGS.		
	D13-4	1HR-RATED EXTERIOR WALL (WD) - PLASTER			

REFER TO SHEET A100 FOR PLAN NOTES  
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**ISSUES & REVISIONS**

NO.	DATE	DESCRIPTION

FLOOR PLAN - LEVEL 8 **1**  
 1/8" = 1'-0"

[Symbol]	D01-4	NON-RATED INTERIOR PARTITION WALL (WD)	[Symbol]	D13-6	1HR-RATED EXTERIOR WALL (WD) - PLASTER
[Symbol]	D01-6	NON-RATED INTERIOR PARTITION WALL (WD)	[Symbol]	D21-6	2HR-RATED FIRE BARRIER WALL (WD)
[Symbol]	D01-8	NON-RATED INTERIOR PARTITION WALL (WD)	[Symbol]	D22-4/4	2HR-RATED FIRE PARTITION DOUBLE WALL (WD)
[Symbol]	D02-4	NON-RATED FURRED WALL (WD)	[Symbol]	D23A-6/4	2HR-RATED EXTERIOR WALL WITH FURRING (WD) - PLASTER
[Symbol]	D03-6	NON-RATED EXTERIOR WALL (WD)	[Symbol]	D14A-8/4	1HR EXTERIOR WALL WITH FURRING (WD) - FIBER CEMENT SIDING/PANEL
[Symbol]	D11-6	1HR-RATED FIRE PARTITION WALL (WD)	<b>NOTES:</b>		
[Symbol]	D12-4/4	1HR-RATED FIRE PARTITION DOUBLE WALL (WD)	1. REFER TO SHEETS A800A, A800B AND A800C FOR WALL TYPE ASSEMBLY DETAILS.		
[Symbol]	D13-4	1HR-RATED EXTERIOR WALL (WD) - PLASTER	2. REFER TO SHEETS A062 AND A062A FOR WALL TYPE FIRE RATINGS.		

REFER TO SHEET A100 FOR PLAN NOTES  
 REFER TO A400 SERIES FOR UNIT PLAN INFORMATION

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FLOOR PLAN - LEVEL 8

■ SHEET NUMBER  
**A109**

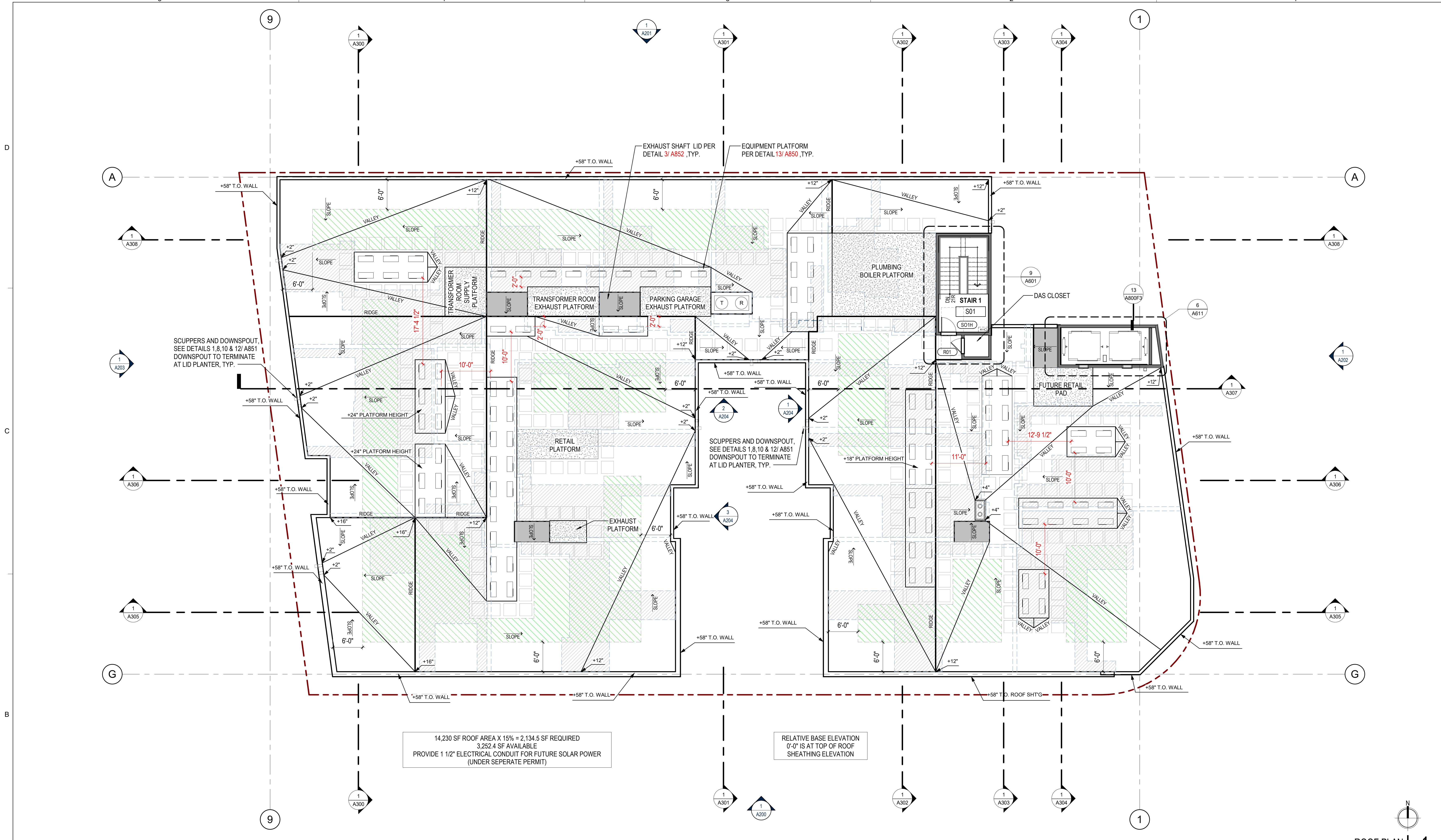


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REFER TO SHEET A100 FOR PLAN NOTES & LEGEND

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 ■ PROJECT NUMBER: 2021-114  
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14,230 SF ROOF AREA X 15% = 2,134.5 SF REQUIRED  
3,252.4 SF AVAILABLE  
PROVIDE 1 1/2" ELECTRICAL CONDUIT FOR FUTURE SOLAR POWER  
(UNDER SEPERATE PERMIT)

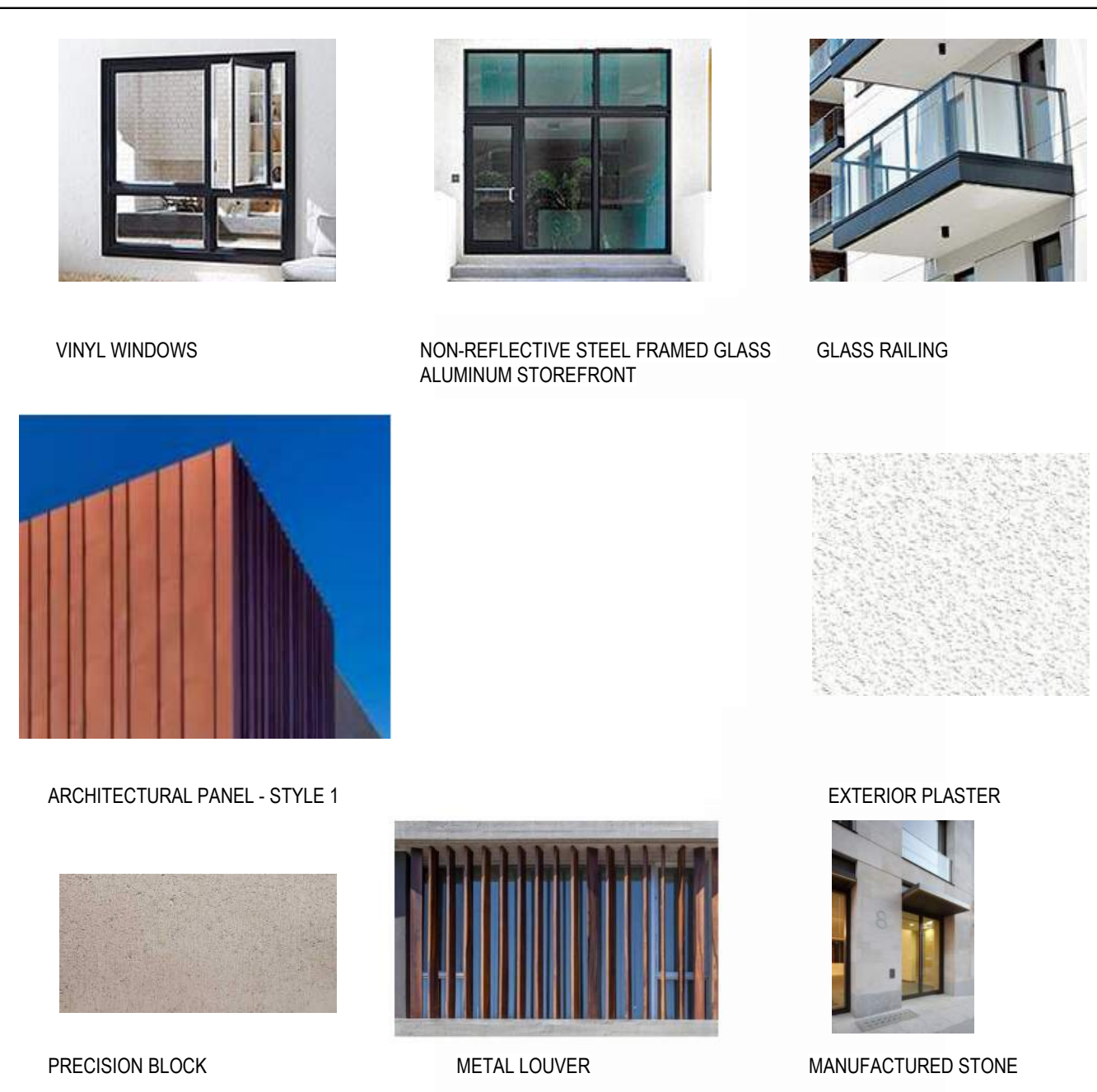
RELATIVE BASE ELEVATION  
0'-0" IS AT TOP OF ROOF  
SHEATHING ELEVATION

NO.	DATE	DESCRIPTION



SOUTH ELEVATION | 1  
1/8" = 1'-0"

- REFER TO SHEET A020 FOR SYMBOLS AND ABBREVIATIONS.
- REFER TO SHEETS A021 AND A022 FOR APPLICABLE GENERAL NOTES.
- REFER TO SHEETS A9 SERIES FOR DOOR & WINDOW SCHEDULES AND STOREFRONT TYPES.
- ALL STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL INFORMATION SHOWN ON THIS SHEET IS FOR REFERENCE ONLY. REFER TO CONSULTANTS DRAWINGS PREPARED BY THE ENGINEER. FOR ALL FRAMING, REFER TO STRUCTURAL DRAWINGS PREPARED BY THE STRUCTURAL ENGINEER. CONTRACTOR TO VERIFY ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO BEGINNING WORK.
- ALL CONTROL JOINTS AND FINISH MATERIALS SHALL WRAP AROUND CORNERS AND CONTINUE ONTO ADJACENT WALLS WHETHER SHOWN OR NOT, UNLESS NOTED OTHERWISE. PER ASTM C 1063 INSTALL CONTROL JOINTS WHERE AN EXPANSION JOINT OCCURS IN THE BASE EXTERIOR WALL. INSTALL CONTROL JOINTS WHERE CEILING FRAMING OR FURRING CHANGES DIRECTION.
- PER ASTM C 1063, EXTERIOR PLASTER CONTROL JOINTS TO BE INSTALLED IN VERTICAL SURFACES EXCEEDING 144 SQUARE FEET IN AREA AND HORIZONTAL SURFACES EXCEEDING 100 SQUARE FEET IN AREA. DISTANCE BETWEEN CONTROL JOINTS SHALL NOT EXCEED 18 FEET IN EITHER DIRECTION OR A LENGTH-TO-WIDTH RATIO OF 2.5 TO 1.
- REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR LIGHT FIXTURES.
- AT EVERY PRIMARY PUBLIC ENTRANCE 60" A.F.F., ADJOINING THE ENTRY DOOR, THERE SHALL BE A SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE COLOR SHALL BE PER GOVERNING CODE REQUIREMENTS.
- ALL WEEP SCREED LINES SHALL BE LEVEL AND STEP WITH ADJACENT GRADE. STEPPING OF WEEP SCREED TO OCCUR AT INSIDE CORNERS. BOTTOM EDGE OF WEEP SCREED SHALL BE INSTALLED NOT LESS THAN 1-INCH BELOW THE JOINT FORMED BY THE FOUNDATION AND FRAMING. NOSE OF SCREED SHALL BE PLACED 4 INCHES MINIMUM ABOVE GRADE OR 2 INCHES MINIMUM ABOVE PAVED SURFACE.
- ALL WINDOW HEAD HEIGHTS TO BE 8'-0" ABOVE FINISH FLOOR, UNLESS NOTED OTHERWISE.
- ALL WINDOWS TO BE RECESSED, EXCEPT AT DECKS, UNLESS NOTED OTHERWISE. REFER TO BUILDING AND UNIT PLANS FOR SPECIFIC INFORMATION.
- PAINT CONDUIT TO MATCH ADJACENT SURFACE.
- ALL AREAS WHERE SMOOTH PLASTER OCCURS, CONTRACTOR TO PROVIDE BASE COAT AND MESH-CRACK ISOLATION SYSTEM, REFER TO SPECIFICATION.
- CONTRACTOR IS RESPONSIBLE FOR BRINGING ANY CONFLICTS AND/OR DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT.
- FAÇADE ACCESS PLAN (OPOS) SHALL BE PROVIDED BY OWNER TO COMPLY WITH OSHA REGULATIONS. THE OWNER SHALL COORDINATE AND NOTIFY THE PROJECT TEAM IF FAÇADE ACCESS REQUIREMENTS NEED TO BE SHOWN IN THESE CONSTRUCTION DOCUMENTS.
- REFER TO SHEET A084 FOR LARR PRODUCT SPECIFIC INFORMATION.
- PER CITY OF LOS ANGELES ORDINANCE NO. 180895: IN ALL BUILDINGS, THE FIRST NINE FEET, MEASURED FROM GRADE, OF EXTERIOR WALLS AND DOORS SHALL BE BUILT AND MAINTAINED WITH A **GRAFFITI-RESISTANT FINISH** CONSISTING OF EITHER A HARD, SMOOTH, IMPERMEABLE SURFACE SUCH AS CERAMIC TILE OR BAKED ENAMEL, OR A RENEWABLE COATING OF AN APPROVED ANTI-GRAFFITI MATERIAL, OR A COMBINATION OF BOTH.



MATERIAL	COLOR
1	OFF WHITE
2	MEDIUM GRAY
3	DARK GRAY
4	
5A	
5B	
6	
7	
8	
9	
10A	
10B	
11	
12	
13	
14	
15	

**NOT FOR CONSTRUCTION**

- ISSUE AS: HOH REVIEW
- ISSUE DATE: 12/06/2023
- SCALE: As indicated
- PROJECT NUMBER: 2021-114
- SHEET TITLE

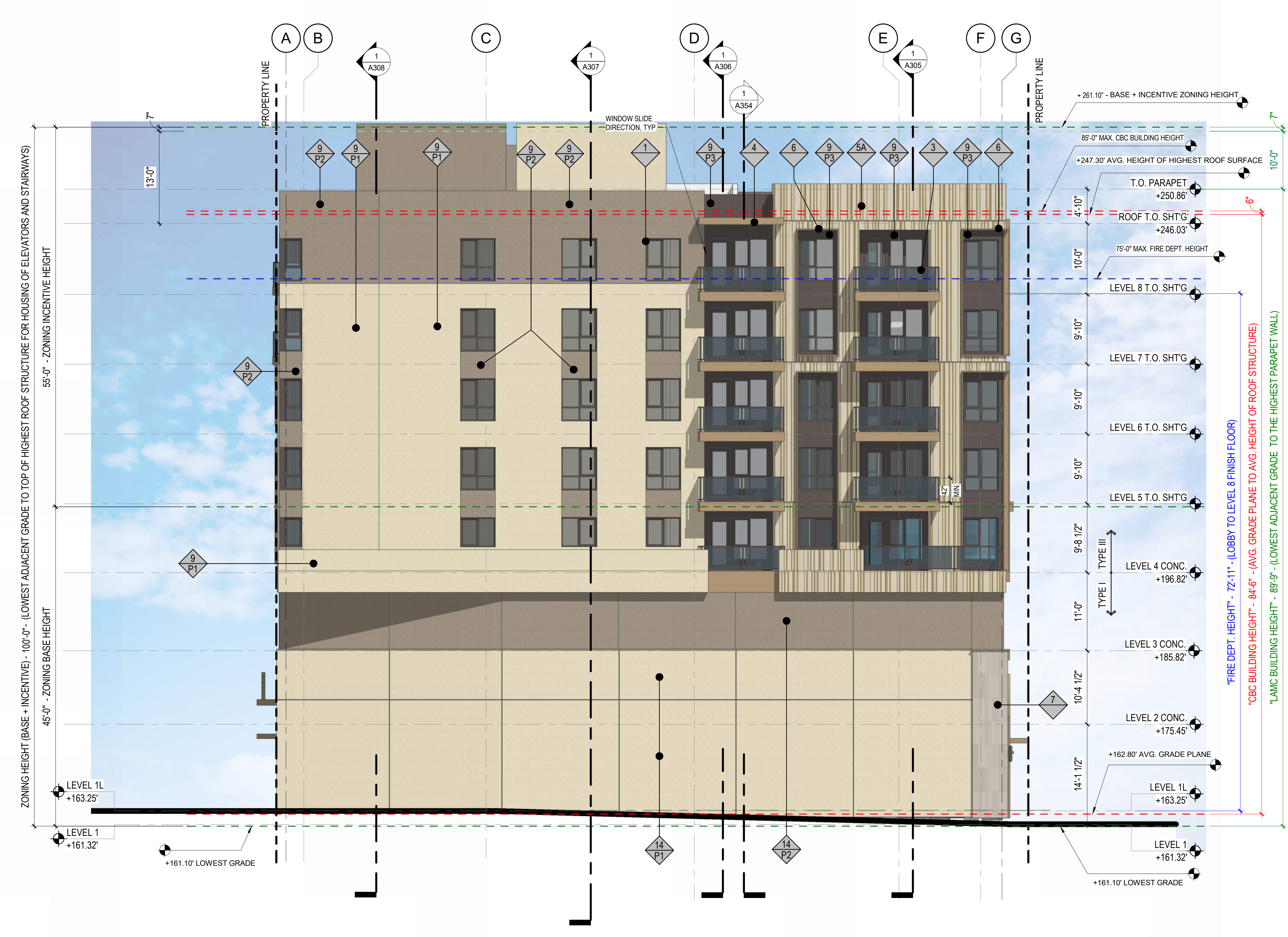
**SOUTH ELEVATION**

SHEET NUMBER  
**A200**





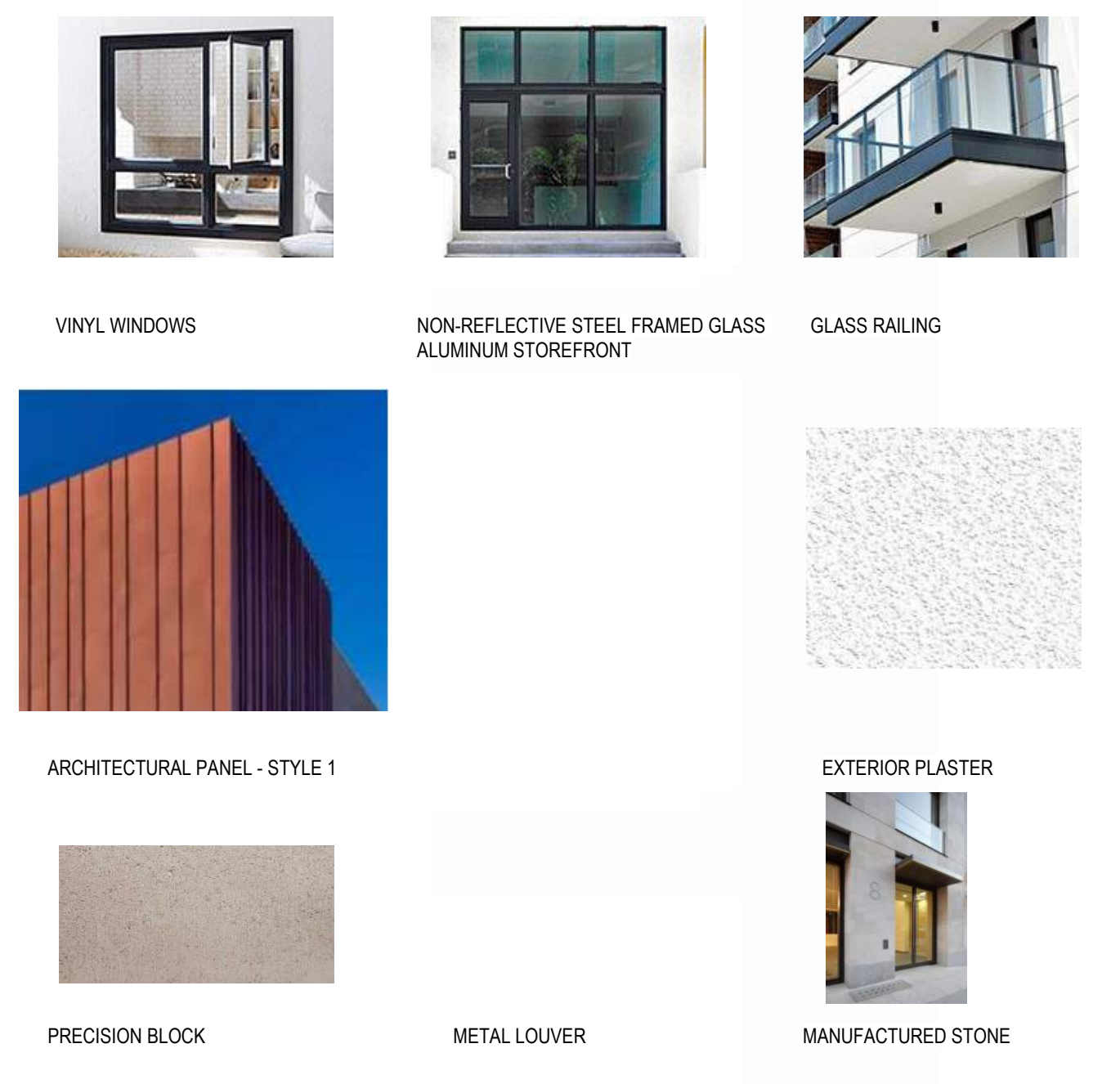
NO.	DATE	DESCRIPTION



WEST ELEVATION | 1  
 1/8" = 1'-0"

- 1. REFER TO SHEET A020 FOR SYMBOLS AND ABBREVIATIONS.
- 2. REFER TO SHEETS A021 AND A022 FOR APPLICABLE GENERAL NOTES.
- 3. REFER TO SHEETS A9 SERIES FOR DOOR & WINDOW SCHEDULES AND STOREFRONT TYPES.
- 4. ALL STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL INFORMATION SHOWN ON THIS SHEET IS FOR REFERENCE ONLY. REFER TO CONSULTANTS DRAWINGS PREPARED BY THE ENGINEER. FOR ALL FRAMING, REFER TO STRUCTURAL DRAWINGS PREPARED BY THE STRUCTURAL ENGINEER. CONTRACTOR TO VERIFY ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO BEGINNING WORK.
- 5. ALL CONTROL JOINTS AND FINISH MATERIALS SHALL WRAP AROUND CORNERS AND CONTINUE ONTO ADJACENT WALLS WHETHER SHOWN OR NOT, UNLESS NOTED OTHERWISE. PER ASTM C 1063 INSTALL CONTROL JOINTS WHERE AN EXPANSION JOINT OCCURS IN THE BASE EXTERIOR WALL. INSTALL CONTROL JOINTS WHERE CEILING FRAMING OR FURRING CHANGES DIRECTION.
- 6. PER ASTM C 1063, EXTERIOR PLASTER CONTROL JOINTS TO BE INSTALLED IN VERTICAL SURFACES EXCEEDING 144 SQUARE FEET IN AREA AND HORIZONTAL SURFACES EXCEEDING 100 SQUARE FEET IN AREA. DISTANCE BETWEEN CONTROL JOINTS SHALL NOT EXCEED 18 FEET IN EITHER DIRECTION OR A LENGTH-TO-WIDTH RATIO OF 2.5 TO 1.
- 7. REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR LIGHT FIXTURES.
- 8. AT EVERY PRIMARY PUBLIC ENTRANCE 60" A.F.F., ADJOINING THE ENTRY DOOR, THERE SHALL BE A SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE COLOR SHALL BE PER GOVERNING CODE REQUIREMENTS.
- 9. ALL WEEP SCREED LINES SHALL BE LEVEL AND STEP WITH ADJACENT GRADE. STEPPING OF WEEP SCREED TO OCCUR AT INSIDE CORNERS. BOTTOM EDGE OF WEEP SCREED SHALL BE INSTALLED NOT LESS THAN 1-INCH BELOW THE JOINT FORMED BY THE FOUNDATION AND FRAMING. NOSE OF SCREED SHALL BE PLACED 4 INCHES MINIMUM ABOVE GRADE OR 2 INCHES MINIMUM ABOVE PAVED SURFACE.
- 10. ALL WINDOW HEAD HEIGHTS TO BE 8'-0" ABOVE FINISH FLOOR, UNLESS NOTED OTHERWISE.
- 11. ALL WINDOWS TO BE RECESSED, EXCEPT AT DECKS, UNLESS NOTED OTHERWISE. REFER TO BUILDING AND UNIT PLANS FOR SPECIFIC INFORMATION.
- 12. FRAMING SUB-CONTRACTOR SHALL REVIEW AND COORDINATE EXTERIOR LIGHTING AND SIGNAGE LOCATIONS AND SHALL PROVIDE SOLID BLOCKING WHERE REQUIRED.
- 13. PAINT CONDUIT TO MATCH ADJACENT SURFACE.
- 14. ALL AREAS WHERE SMOOTH PLASTER OCCURS, CONTRACTOR TO PROVIDE BASE COAT AND MESH-CRACK ISOLATION SYSTEM. REFER TO SPECIFICATION.
- 15. CONTRACTOR IS RESPONSIBLE FOR BRINGING ANY CONFLICTS AND/OR DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT.
- 16. FACADE ACCESS PLAN (OPOS) SHALL BE PROVIDED BY OWNER TO COMPLY WITH OSHA REGULATIONS. THE OWNER SHALL COORDINATE AND NOTIFY THE PROJECT TEAM IF FACADE ACCESS REQUIREMENTS NEED TO BE SHOWN IN THESE CONSTRUCTION DOCUMENTS.
- 17. REFER TO SHEET A084 FOR LARR PRODUCT SPECIFIC INFORMATION.

- 18. PER CITY OF LOS ANGELES ORDINANCE NO. 180895: IN ALL BUILDINGS, THE FIRST NINE FEET, MEASURED FROM GRADE, OF EXTERIOR WALLS AND DOORS SHALL BE BUILT AND MAINTAINED WITH A GRAFFITI-RESISTANT FINISH CONSISTING OF EITHER A HARD, SMOOTH, IMPERMEABLE SURFACE SUCH AS CERAMIC TILE OR BAKED ENAMEL, OR A RENEWABLE COATING OF AN APPROVED ANTI-GRAFFITI MATERIAL, OR A COMBINATION OF BOTH.



**MATERIAL LEGEND**

MATERIAL	COLOR
VINYL WINDOWS	OFF WHITE
NON-REFLECTIVE STEEL FRAMED GLASS ALUMINUM STOREFRONT	MEDIUM GRAY
GLASS RAILING	DARK GRAY
CANOPY	
ARCHITECTURAL PANEL - STYLE 1	
WINDOW SURROUND	
MANUFACTURED STONE	
EXTERIOR PLASTER	
ROLL DOWN DOOR - SOLID	
ROLL DOWN DOOR - OPEN GRILLE	
METAL LOUVER	
EXTERIOR CEMENT PLASTER OVER PERCISION BLOCK	
CAST IN PLACE CONCRETE	

**NOT FOR CONSTRUCTION**

- ISSUE AS: HOH REVIEW
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- PROJECT NUMBER: 2021-114
- SHEET TITLE

**WEST ELEVATION**

**A203**

SHEET NUMBER

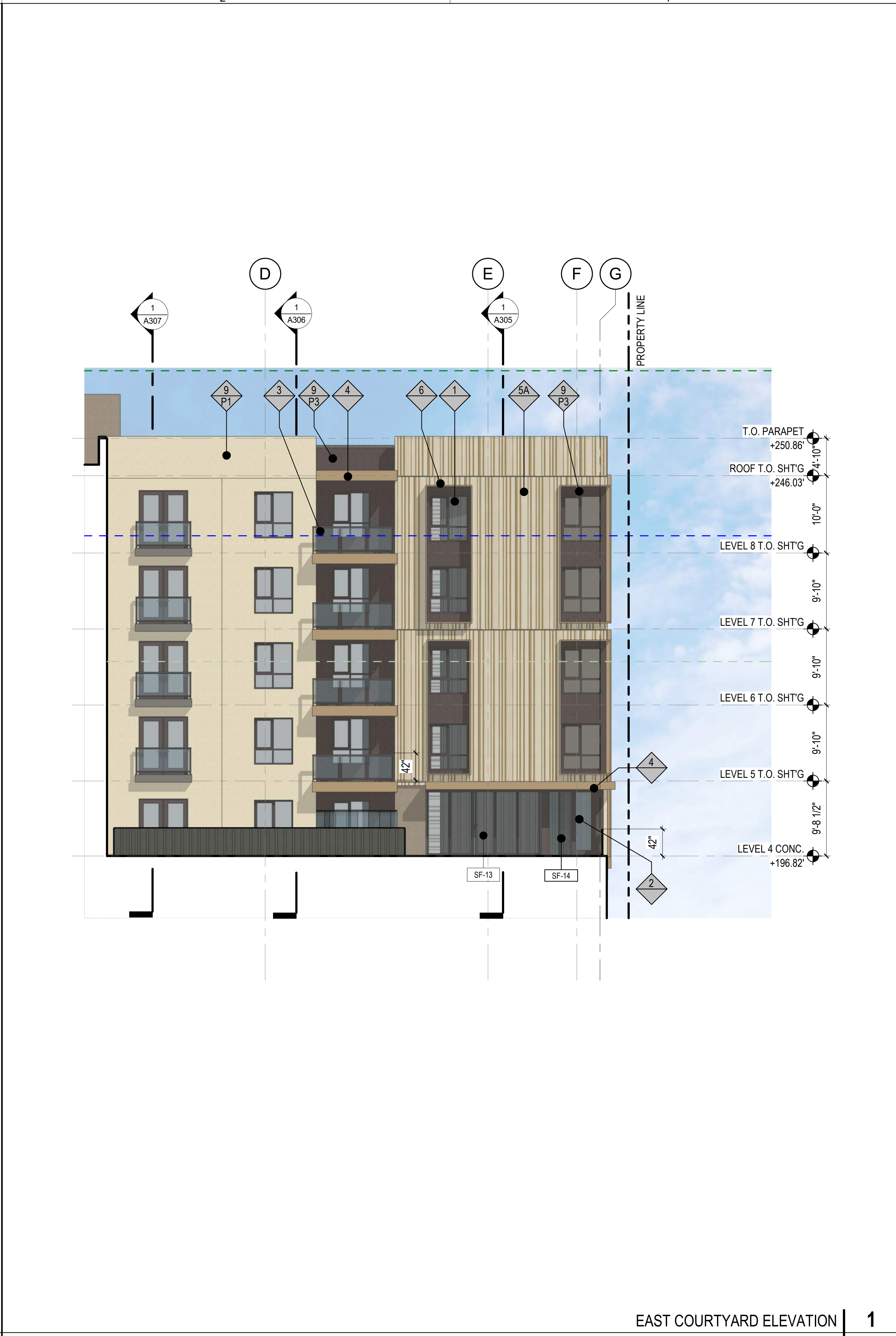
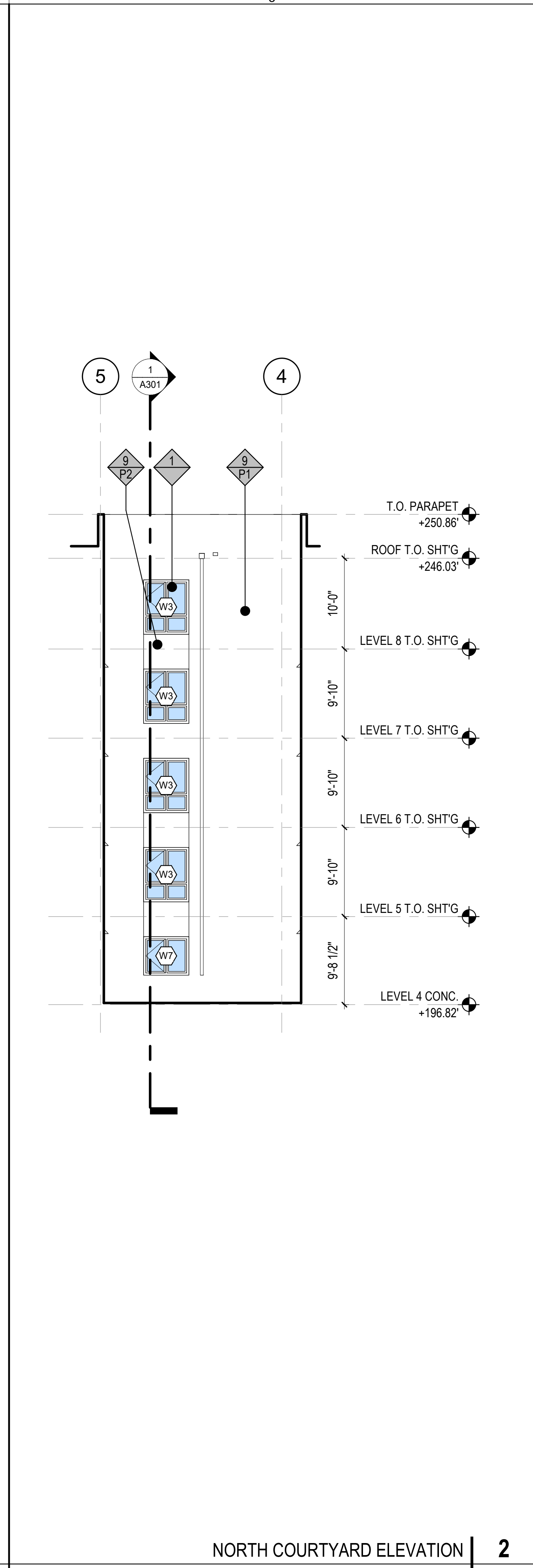
NO.	DATE	DESCRIPTION

NOT FOR CONSTRUCTION

- ISSUE AS: HOH REVIEW
- ISSUE DATE: 12/06/2023
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- PROJECT NUMBER: 2021-114
- SHEET TITLE

COURTYARD ELEVATIONS

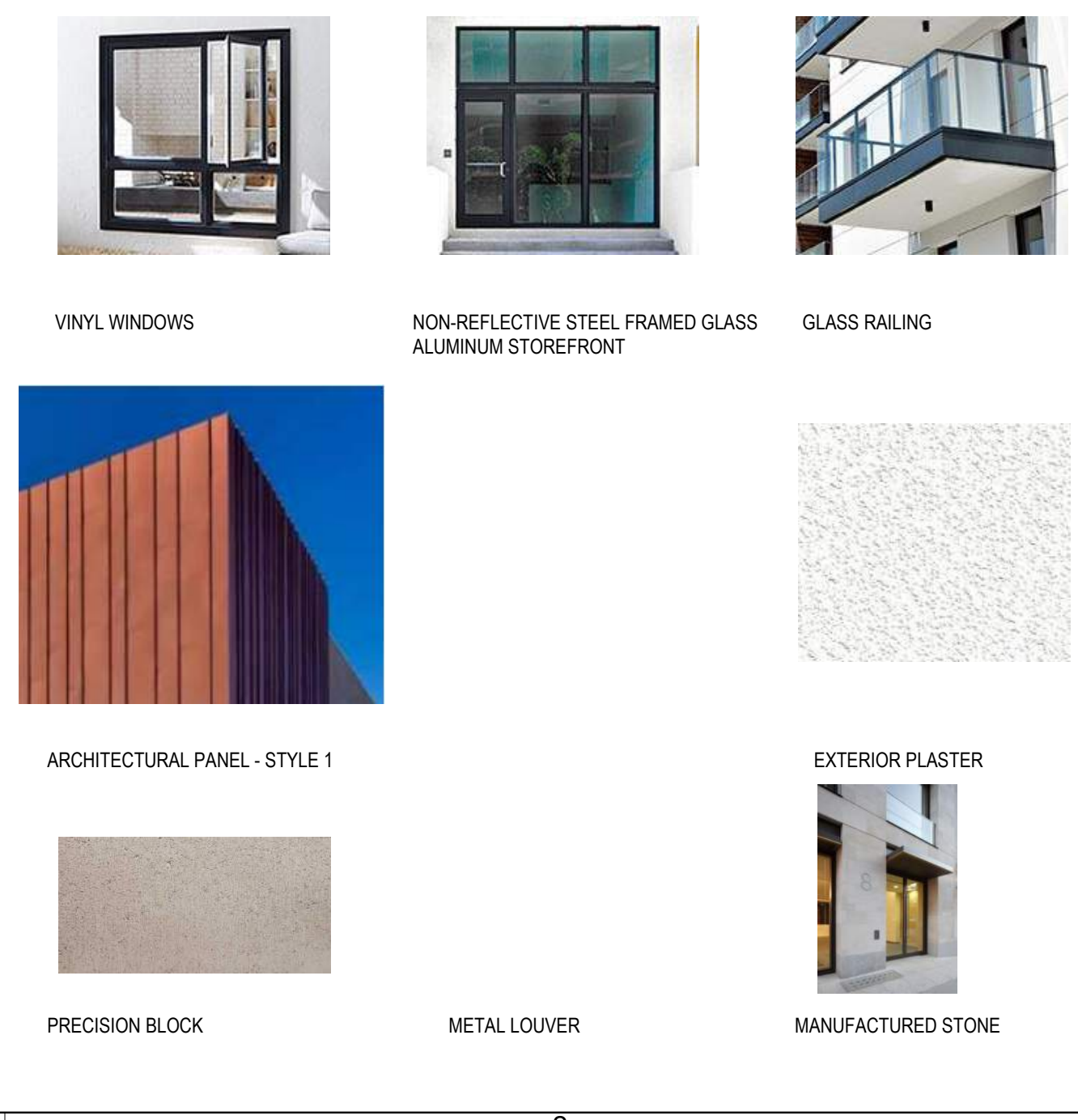
■ SHEET NUMBER  
**A204**



- 1. REFER TO SHEET A020 FOR SYMBOLS AND ABBREVIATIONS.
- 2. REFER TO SHEETS A021 AND A022 FOR APPLICABLE GENERAL NOTES.
- 3. REFER TO SHEETS A9 SERIES FOR DOOR & WINDOW SCHEDULES AND STOREFRONT TYPES.
- 4. ALL STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL INFORMATION SHOWN ON THIS SHEET IS FOR REFERENCE ONLY. REFER TO CONSULTANTS DRAWINGS PREPARED BY THE ENGINEER. FOR ALL FRAMING, REFER TO STRUCTURAL DRAWINGS PREPARED BY THE STRUCTURAL ENGINEER. CONTRACTOR TO VERIFY ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO BEGINNING WORK.
- 5. ALL CONTROL JOINTS AND FINISH MATERIALS SHALL WRAP AROUND CORNERS AND CONTINUE ONTO ADJACENT WALLS WHETHER SHOWN OR NOT. UNLESS NOTED OTHERWISE, PER ASTM C 1063 INSTALL CONTROL JOINTS WHERE AN EXPANSION JOINT OCCURS IN THE BASE EXTERIOR WALL. INSTALL CONTROL JOINTS WHERE CEILING FRAMING OR FURRING CHANGES DIRECTION.
- 6. PER ASTM C 1063, EXTERIOR PLASTER CONTROL JOINTS TO BE INSTALLED IN VERTICAL SURFACES EXCEEDING 144 SQUARE FEET IN AREA AND HORIZONTAL SURFACES EXCEEDING 100 SQUARE FEET IN AREA. DISTANCE BETWEEN CONTROL JOINTS SHALL NOT EXCEED 18 FEET IN EITHER DIRECTION OR A LENGTH-TO-WIDTH RATIO OF 2.5 TO 1.
- 7. REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR LIGHT FIXTURES.
- 8. AT EVERY PRIMARY PUBLIC ENTRANCE 60" A.F.F., ADJOINING THE ENTRY DOOR, THERE SHALL BE A SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE COLOR SHALL BE PER GOVERNING CODE REQUIREMENTS.

- 9. ALL WEEP SCREED LINES SHALL BE LEVEL AND STEP WITH ADJACENT GRADE. STEPPING OF WEEP SCREED TO OCCUR AT INSIDE CORNERS. BOTTOM EDGE OF WEEP SCREED SHALL BE INSTALLED NOT LESS THAN 1-INCH BELOW THE JOINT FORMED BY THE FOUNDATION AND FRAMING. NOSE OF SCREED SHALL BE PLACED 4 INCHES MINIMUM ABOVE GRADE OR 2 INCHES MINIMUM ABOVE PAVED SURFACE.
- 10. ALL WINDOW HEAD HEIGHTS TO BE 8'-0" ABOVE FINISH FLOOR, UNLESS NOTED OTHERWISE.
- 11. ALL WINDOWS TO BE RECESSED, EXCEPT AT DECKS, UNLESS NOTED OTHERWISE. REFER TO BUILDING AND UNIT PLANS FOR SPECIFIC INFORMATION.
- 12. FRAMING SUB-CONTRACTOR SHALL REVIEW AND COORDINATE EXTERIOR LIGHTING AND SIGNAGE LOCATIONS AND SHALL PROVIDE SOLID BLOCKING WHERE REQUIRED.
- 13. PAINT CONDUIT TO MATCH ADJACENT SURFACE.
- 14. ALL AREAS WHERE SMOOTH PLASTER OCCURS, CONTRACTOR TO PROVIDE BASE COAT AND MESH-CRACK ISOLATION SYSTEM. REFER TO SPECIFICATION.
- 15. CONTRACTOR IS RESPONSIBLE FOR BRINGING ANY CONFLICTS AND/OR DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT.
- 16. FACADE ACCESS PLAN (OPOS) SHALL BE PROVIDED BY OWNER TO COMPLY WITH OSHA REGULATIONS. THE OWNER SHALL COORDINATE AND NOTIFY THE PROJECT TEAM IF FACADE ACCESS REQUIREMENTS NEED TO BE SHOWN IN THESE CONSTRUCTION DOCUMENTS.
- 17. REFER TO SHEET A084 FOR LARR PRODUCT SPECIFIC INFORMATION.

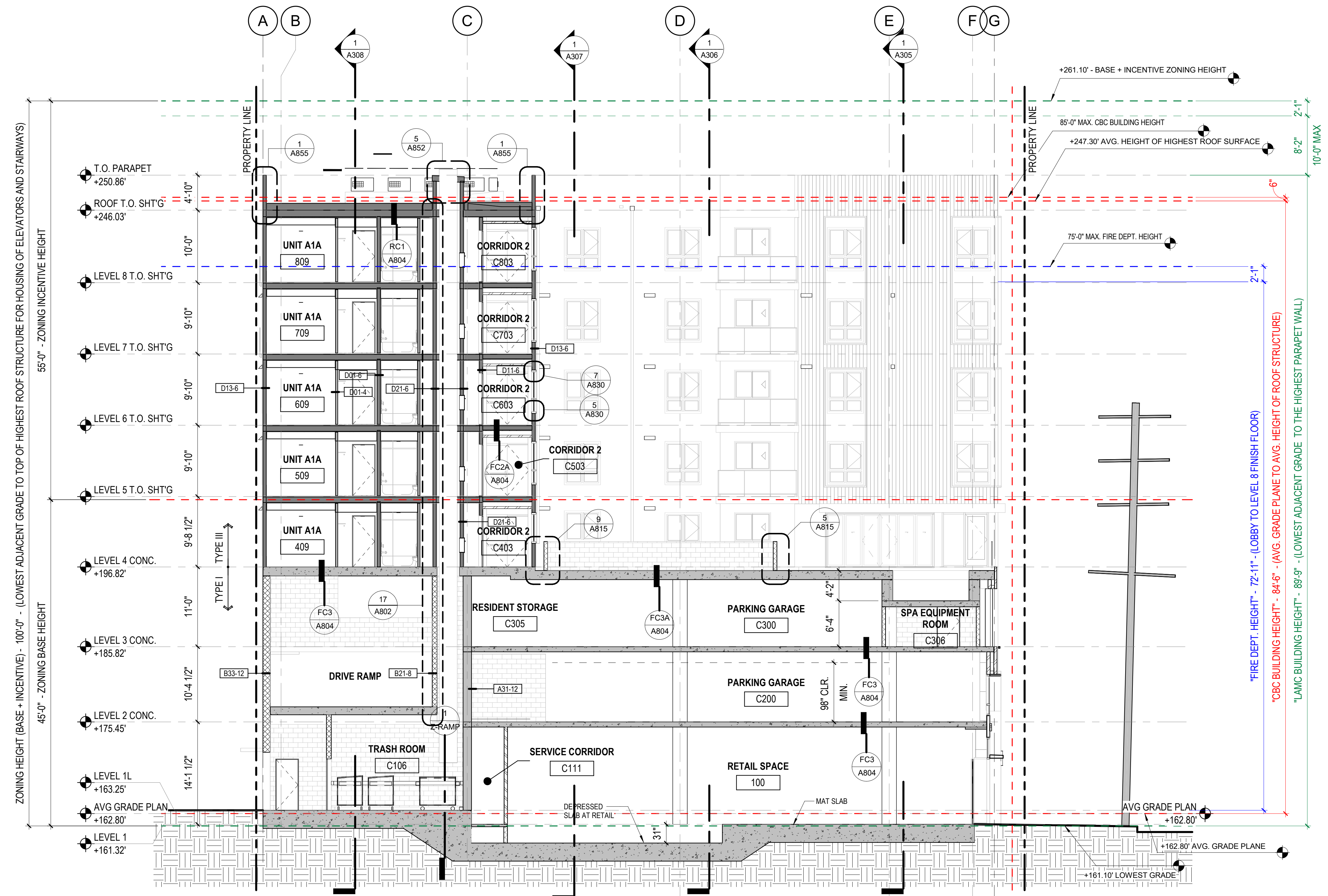
- 18. PER CITY OF LOS ANGELES ORDINANCE NO. 180895: IN ALL BUILDINGS, THE FIRST NINE FEET, MEASURED FROM GRADE, OF EXTERIOR WALLS AND DOORS SHALL BE BUILT AND MAINTAINED WITH A GRAFFITI-RESISTANT FINISH CONSISTING OF EITHER A HARD, SMOOTH, IMPERMEABLE SURFACE SUCH AS CERAMIC TILE OR BAKED ENAMEL, OR A RENEWABLE COATING OF AN APPROVED ANTI-GRAFFITI MATERIAL, OR A COMBINATION OF BOTH.



NO.	MATERIAL	NO.	COLOR
1	VINYL WINDOWS	P1	OFF WHITE
2	NON-REFLECTIVE STEEL FRAMED GLASS ALUMINUM STOREFRONT	P2	MEDIUM GRAY
3	GLASS RAILING	P3	DARK GRAY
4	CANOPY		
5A	ARCHITECTURAL PANEL - STYLE 1		
5B			
6	WINDOW SURROUND		
7	MANUFACTURED STONE		
8	EXTERIOR PLASTER		
12A	ROLL DOWN DOOR - SOLID		
12B	ROLL DOWN DOOR - OPEN GRILLE		
13	METAL LOUVER		
14	EXTERIOR CEMENT PLASTER OVER PERCISION BLOCK		
15	CAST IN PLACE CONCRETE		



NO.	DATE	DESCRIPTION



**BUILDING SECTION B 1**  
1/8" = 1'-0"

**SECTION NOTES**

- REFER TO SHEET A020 FOR SYMBOLS AND ABBREVIATIONS.
- REFER TO SHEETS A021 AND A022 FOR APPLICABLE GENERAL NOTES.
- REFER TO SHEETS A9 SERIES FOR DOOR & WINDOW SCHEDULES AND STOREFRONT TYPES.
- DIMENSIONS ARE TO CENTERLINE OF COLUMN, FACE OF STUD, FACE OF CONCRETE, OR FACE OF MASONRY, UNLESS NOTED OTHERWISE.
- ANY DISCREPANCIES NOTED SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION PRIOR TO BEGINNING WORK.
- ALL STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL INFORMATION SHOWN ON THIS SHEET IS FOR REFERENCE ONLY. REFER TO CONSULTANTS DRAWINGS PREPARED BY THE ENGINEER. FOR ALL FRAMING, REFER TO STRUCTURAL DRAWINGS PREPARED BY THE STRUCTURAL ENGINEER. CONTRACTOR TO VERIFY ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO BEGINNING WORK.
- APPROVED SET OF PLANS FOR BUILDING, FIRE SPRINKLER, FIRE ALARM, ETC. SHALL BE ON THE JOB SITE DURING CONSTRUCTION AND NO INSPECTIONS WILL BE MADE WITHOUT COMPLIANCE WITH THE ABOVE PROVISION.
- REFER TO SHEETS "INTERIOR FINISH SCHEDULE", "EXTERIOR ELEVATIONS", "INTERIOR ELEVATIONS", "REFLECTED CEILING PLANS", AND "FINISH PLANS" FOR FINISHES.
- ALL WATERPROOFING ELEMENTS ARE TO BE UNDER THE CONTRACTOR'S SCOPE OF WORK. THIS INCLUDES THE ROOF MEMBRANE, WALL SCUPPER, PARAPET CORNER, PARAPET WALL FLASHING, AND TYPICAL FLASHING DETAILS PER MANUFACTURER STANDARDS. CONTRACTOR TO VERIFY WITH ROOFING MANUFACTURE IF WALK PADS ARE REQUIRED.
- REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR LIGHT FIXTURES.
- AT EVERY PRIMARY PUBLIC ENTRANCE 60" A.F.F. ADJOINING THE ENTRY DOOR, THERE SHALL BE A SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE COLOR SHALL BE PER GOVERNING CODE REQUIREMENTS.
- ALL SURFACES NOT ELEVATED OR CALLED OUT SHALL MATCH ADJACENT SURFACES.
- SHOP DRAWINGS FOR ARCHITECTURAL METAL SHALL SHOW DIMENSIONS, WEIGHT, AND CONNECTIONS REQUIRED TO ACCOMMODATE THE GALVANIZING AND SPECIAL PAINTING PROCESSES. SHOP DRAWINGS SHALL INCLUDE OVERALL DIAGRAM FOR CONNECTIONS AND DETAILS OF THOSE CONNECTIONS. ALL CONNECTIONS SHALL BE WELDED, GRIND, SMOOTH, AND SHOP PRIMED AND PAINTED.
- CONTRACTOR SHALL VERIFY ALL MATERIALS, COLORS, AND FINISHES WITH THE ARCHITECT. ANY DISCREPANCIES NOTED SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION PRIOR TO BEGINNING WORK.
- FINISHES SHOWN CAN BE ASSUMED TO WRAP AROUND PROJECTING ELEMENTS UNLESS NOTED OTHERWISE.
- PAINT CONDUIT TO MATCH ADJACENT SURFACE.
- REFER TO CBC SECTION 2406 FOR SAFETY GLAZING REQUIREMENTS
- REFER TO BUILDING PLAN SHEETS FOR WALL LEGEND

**NOT FOR CONSTRUCTION**

- ISSUE AS: HOH REVIEW
- ISSUE DATE: 12/11/2023
- SCALE: As indicated
- PROJECT NUMBER: 2021-114
- SHEET TITLE

**BUILDING SECTION B**

**SHEET NUMBER**  
**A301**



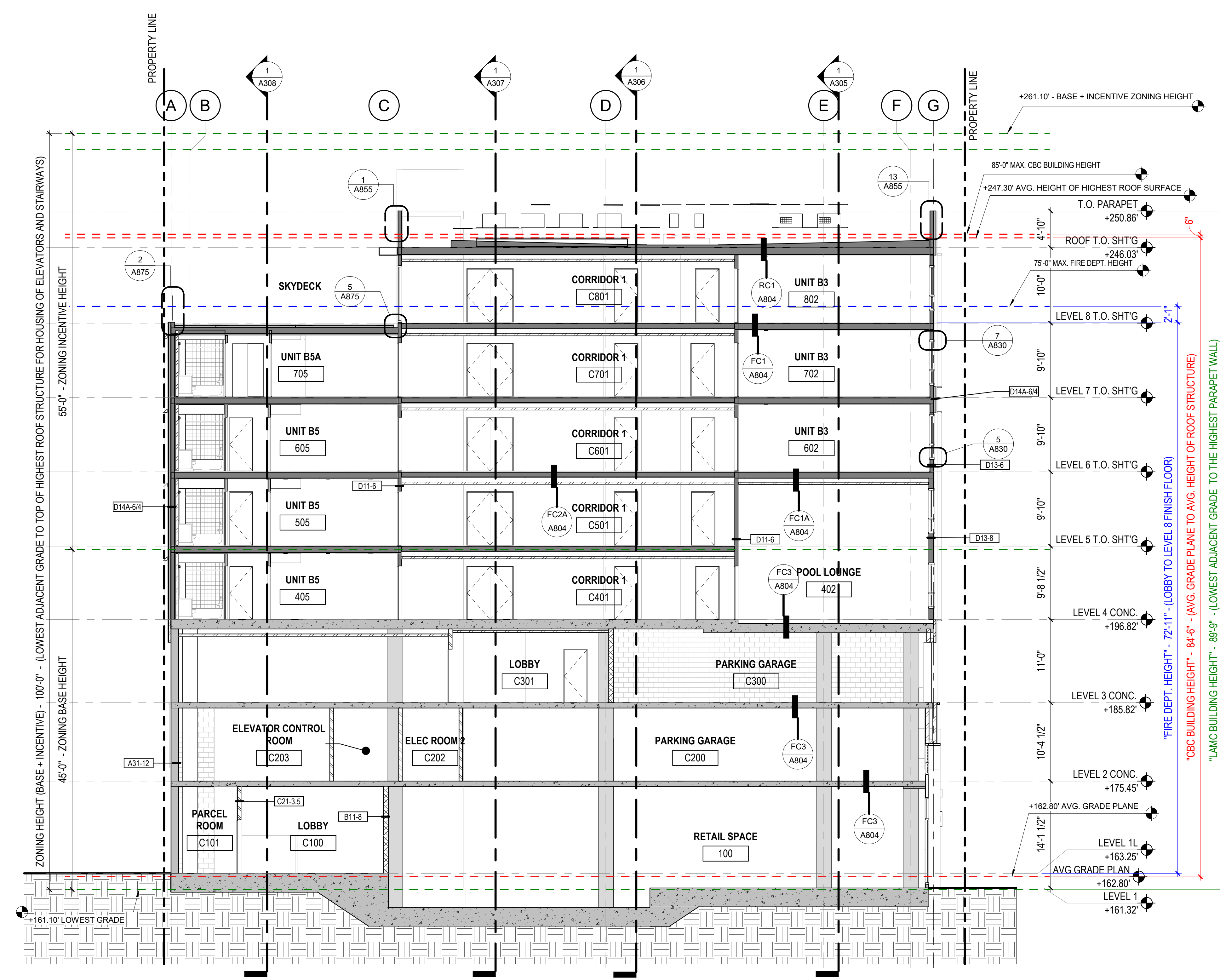


D

C

B

A



BUILDING SECTION D | 1  
 1/8" = 1'-0"

SECTION NOTES

- REFER TO SHEET A020 FOR SYMBOLS AND ABBREVIATIONS.
- REFER TO SHEETS A021 AND A022 FOR APPLICABLE GENERAL NOTES.
- REFER TO SHEETS A9 SERIES FOR DOOR & WINDOW SCHEDULES AND STOREFRONT TYPES.
- DIMENSIONS ARE TO CENTERLINE OF COLUMN, FACE OF STUD, FACE OF CONCRETE, OR FACE OF MASONRY, UNLESS NOTED OTHERWISE.
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- APPROVED SET OF PLANS FOR BUILDING, FIRE SPRINKLER, FIRE ALARM, ETC. SHALL BE ON THE JOB SITE DURING CONSTRUCTION AND NO INSPECTIONS WILL BE MADE WITHOUT COMPLIANCE WITH THE ABOVE PROVISION.
- REFER TO SHEETS "INTERIOR FINISH SCHEDULE", "EXTERIOR ELEVATIONS", "INTERIOR ELEVATIONS", "REFLECTED CEILING PLANS", AND "FINISH PLANS" FOR FINISHES.
- ALL WATERPROOFING ELEMENTS ARE TO BE UNDER THE CONTRACTOR'S SCOPE OF WORK. THIS INCLUDES THE ROOF MEMBRANE, WALL SCUPPER, PARAPET CORNER, PARAPET WALL FLASHING, AND TYPICAL FLASHING DETAILS PER MANUFACTURER STANDARDS. CONTRACTOR TO VERIFY WITH ROOFING MANUFACTURE IF WALK PADS ARE REQUIRED.
- REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR LIGHT FIXTURES.
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- PAINT CONDUIT TO MATCH ADJACENT SURFACE.
- REFER TO CBC SECTION 2406 FOR SAFETY GLAZING REQUIREMENTS
- REFER TO BUILDING PLAN SHEETS FOR WALL LEGEND

100 WEST BROADWAY SUITE 3000  
 LONG BEACH, CA 90802  
 (562) 414-4066  
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CLIENT/OWNER  
**FLORES FUND, LLC**  
 888 S. FIGUEROA STREET  
 SUITE 1900  
 LOS ANGELES, CA. 90017

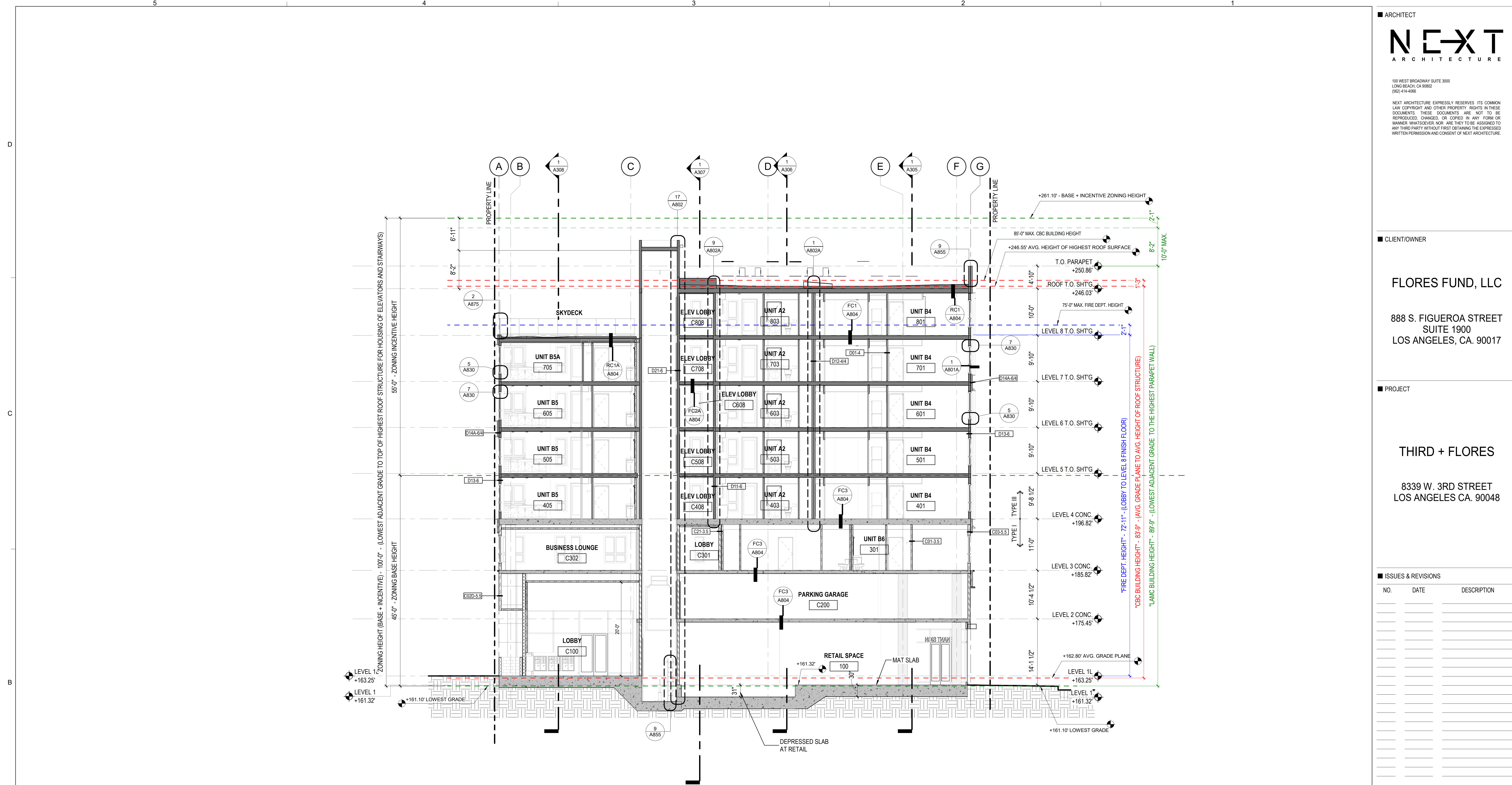
PROJECT  
**THIRD + FLORES**  
 8339 W. 3RD STREET  
 LOS ANGELES CA. 90048

ISSUES & REVISIONS

NO.	DATE	DESCRIPTION

**NOT FOR CONSTRUCTION**

ISSUE AS: HOH REVIEW  
 ISSUE DATE: 12/11/2023  
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BUILDING SECTION E 1  
1/8" = 1'-0"

SECTION NOTES

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- REFER TO SHEETS A9 SERIES FOR DOOR & WINDOW SCHEDULES AND STOREFRONT TYPES.
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- REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR LIGHT FIXTURES.
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- ALL SURFACES NOT ELEVATED OR CALLED OUT SHALL MATCH ADJACENT SURFACES.
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- REFER TO BUILDING PLAN SHEETS FOR WALL LEGEND

NOT FOR CONSTRUCTION

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- SHEET TITLE

BUILDING SECTION E

A304

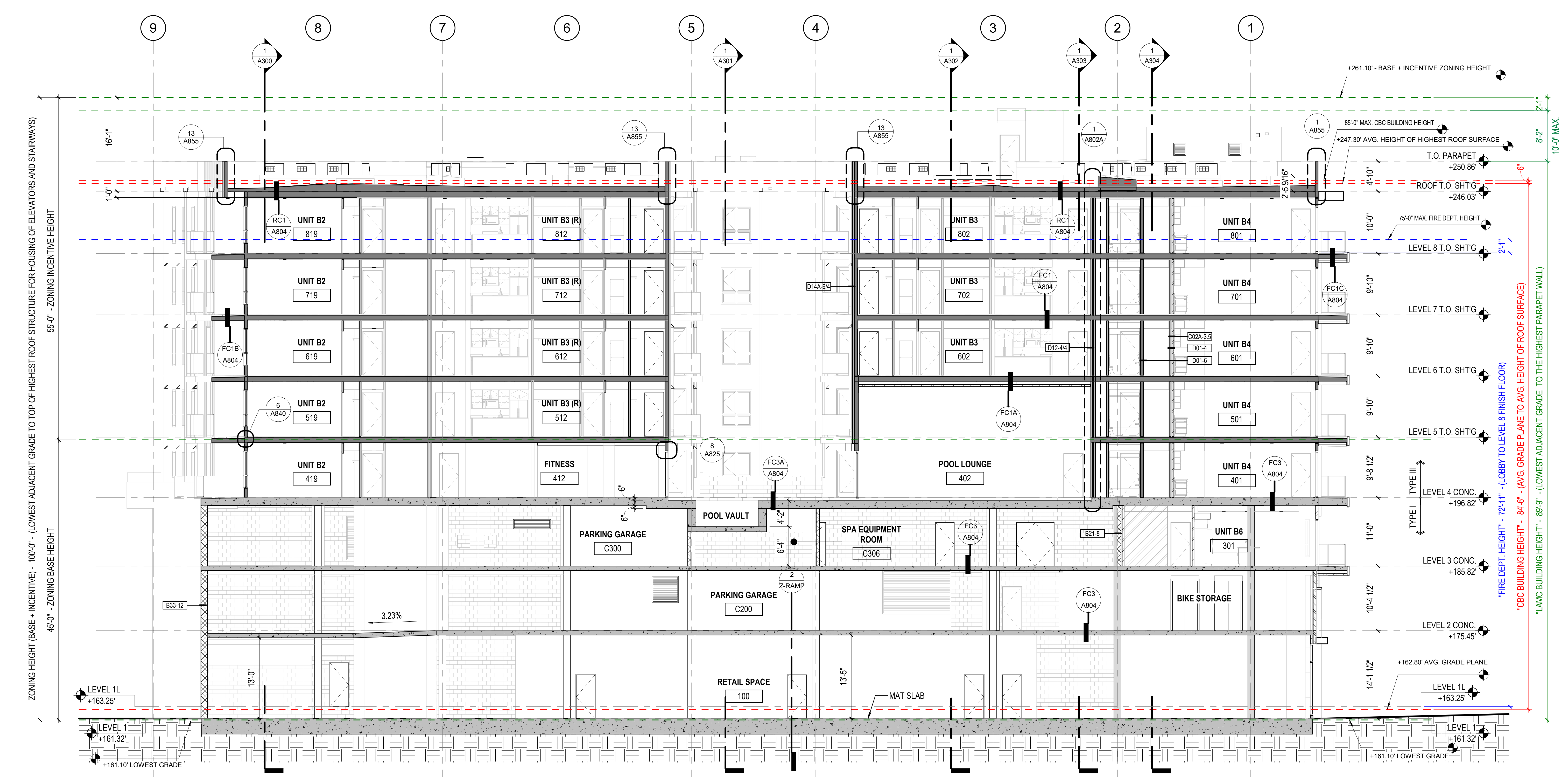
NO.	DATE	DESCRIPTION

**NOT FOR CONSTRUCTION**

- ISSUE AS: HOH REVIEW
- ISSUE DATE: 12/11/2023
- SCALE: As indicated
- PROJECT NUMBER: 2021-114
- SHEET TITLE

**BUILDING SECTION F**

**SHEET NUMBER**  
**A305**



BUILDING SECTION F | 1  
1/8" = 1'-0"

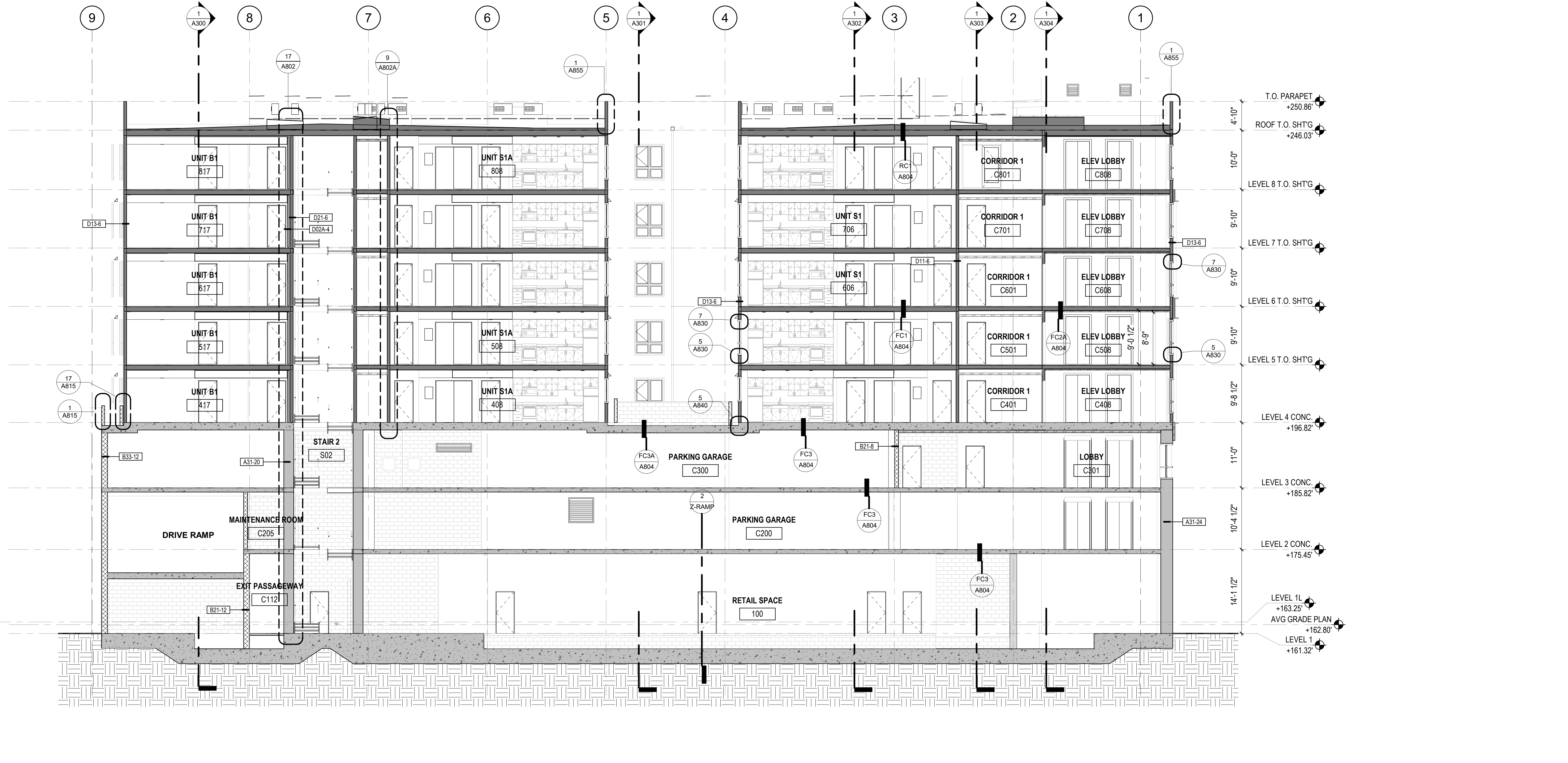
**SECTION NOTES**

- REFER TO SHEET A020 FOR SYMBOLS AND ABBREVIATIONS.
- REFER TO SHEETS A021 AND A022 FOR APPLICABLE GENERAL NOTES.
- REFER TO SHEETS A9 SERIES FOR DOOR & WINDOW SCHEDULES AND STOREFRONT TYPES.
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- PAINT CONDUIT TO MATCH ADJACENT SURFACE.
- REFER TO CBC SECTION 2406 FOR SAFETY GLAZING REQUIREMENTS
- REFER TO BUILDING PLAN SHEETS FOR WALL LEGEND



ISSUES & REVISIONS

NO.	DATE	DESCRIPTION



BUILDING SECTION H | 1  
1/8" = 1'-0"

SECTION NOTES

- REFER TO SHEET A020 FOR SYMBOLS AND ABBREVIATIONS.
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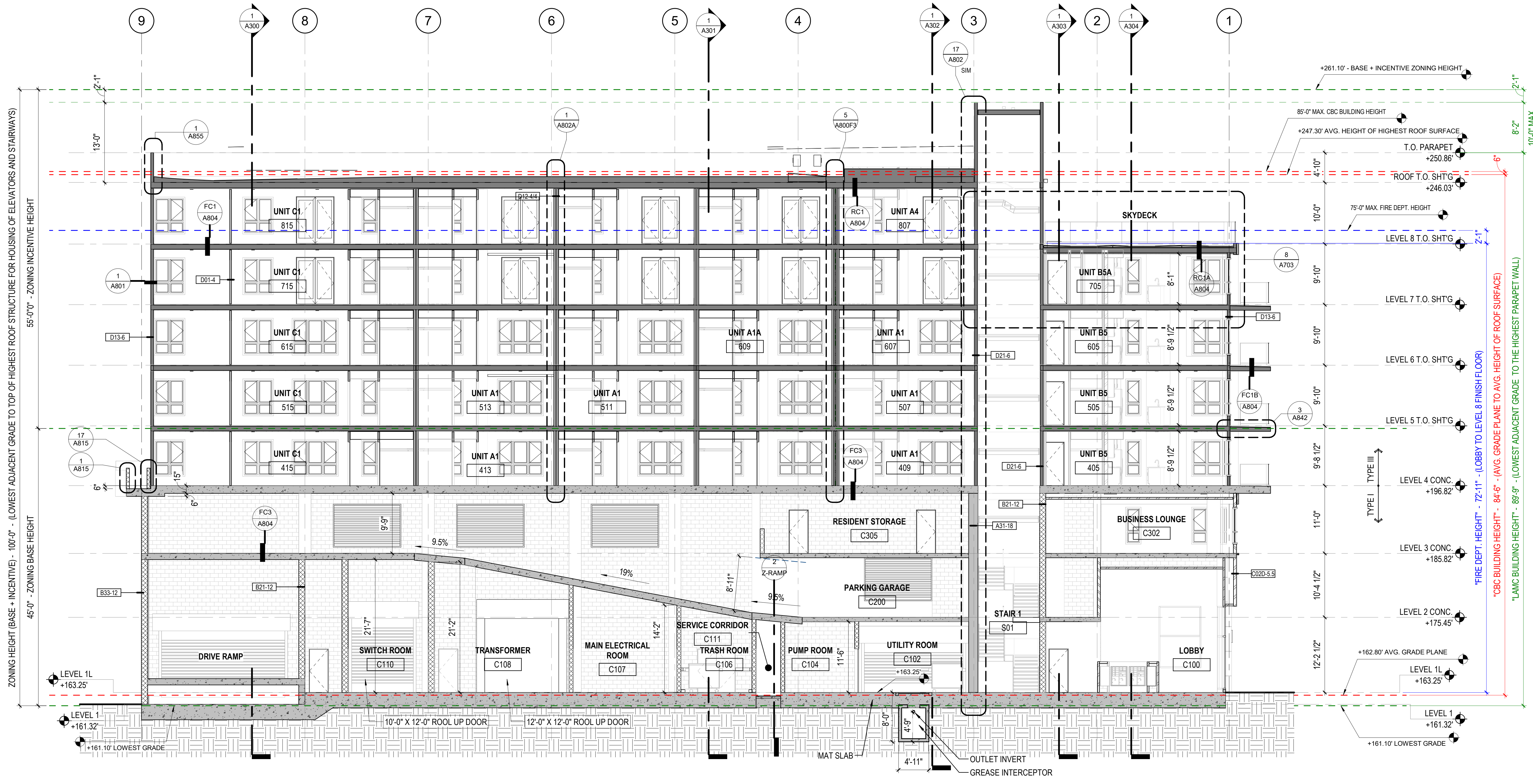
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- SHEET TITLE

BUILDING SECTION H

SHEET NUMBER

# A307



BUILDING SECTION J 1  
1/8" = 1'-0"

**SECTION NOTES**

- REFER TO SHEET A020 FOR SYMBOLS AND ABBREVIATIONS.
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**BUILDING SECTION J**

**A308**















**Exhibit B: Environmental Documents**  
**Case No. CPC-2023-4573-DB-CU-HCA**



CITY OF LOS ANGELES  
DEPARTMENT OF CITY PLANNING  
CITY HALL 200 NORTH SPRING STREET LOS ANGELES CA 90012

## JUSTIFICATION TO SUPPORT A CATEGORICAL EXEMPTION

### 3<sup>rd</sup> AND FLORES PROJECT

---

**Project Addresses:** 8331, 8335, 8337, 8339, 8343, and 8349 W. 3<sup>rd</sup> Street, Los Angeles, CA 90048

**Community Plan Area:** Wilshire

**Council District:** 5 – Katy Young Yaroslavsky

**Project Description:** The Project Site occupies approximately 19,339 square feet of lot area (0.44 acres) and is currently vacant. The Applicant proposes the construction of an eight-story mixed-use building with 77 multi-family residential units including 8 Extremely Low Income units and 11,026 square feet of ground-floor retail. The unit mix would include 10 studio units, 35 one-bedroom units, 27 two-bedroom units, and 5 three-bedroom units. The building would include approximately 7,516 square feet of open space, including 5,328 square feet of non-credited open space such as a podium courtyard, sky deck, fitness room, recreation rooms, and lounges. The proposed development would reach a maximum height of 100 feet above grade. The Proposed Project would include a total of 90,066 square feet of floor area, resulting in an approximate 4.66:1 FAR. The Proposed Project would provide 38 vehicle parking spaces on-site, 78 bicycle parking spaces, and 20 trees.

**PREPARED FOR:**  
The City of Los Angeles  
Department of City  
Planning

**PREPARED BY:**  
Parker Environmental  
Consultants

**APPLICANT:**  
Flores Fund, LLC

January 2024

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Attachment 1 ..... Additional Maps of the Project Site

Attachment 2 ..... Transportation Assessment

Attachment 3 ..... Noise Calculations Worksheets

Attachment 4 ..... Air Quality Modeling and Greenhouse Gas Emissions Worksheets

Attachment 5 ..... USFWS IPaC Resource List

Attachment 6 ..... Tree Disposition Plan

Attachment 7 ..... Geotechnical Investigation

# Section 1. Introduction

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## PROJECT INFORMATION

Project Title: 3<sup>rd</sup> and Flores Project

Project Location: 8331, 8335, 8337, 8339, 8343, and 8349 W. 3<sup>rd</sup> Street, Los Angeles, CA 90048

Project Applicant: Flores Fund, LLC  
C/O Daniel Taban  
888 S. Figueroa Street, Suite 1900  
Los Angeles, CA 90017

Lead Agency: City of Los Angeles  
Department of City Planning  
200 N. Spring Street, Room 763  
Los Angeles, CA 90012

An application for the proposed 3<sup>rd</sup> and Flores Project (Proposed Project) has been submitted to the City of Los Angeles Department of City Planning (DCP) for discretionary review.

The following information is being submitted in support of the determination that the proposed mixed-use residential and commercial development, located at 8331, 8335, 8337, 8339, 8343, and 8349 W. 3<sup>rd</sup> Street (Proposed Project), qualifies for a Categorical Exemption pursuant to the criteria set forth in Section 15332 (Class 32 Infill Development Projects) under the California Environmental Quality Act (CEQA) (P.R.C. 21000-21189.2), and the State CEQA Guidelines (C.C.R. Title 14, Division 6, Chapter 3, 15000-15387).

As presented in the enclosed materials, the Proposed Project meets all of the criteria necessary to qualify for a CEQA Exemption as a Class 32 (Infill Development Project) pursuant to CEQA Guideline Sections 15332. Application of these exemptions, as with all Categorical Exemptions, are limited by certain exceptions to the exemptions identified in Section 15300.2 of the CEQA Guidelines. As discussed in further detail below, no exceptions apply to the Proposed Project. Therefore, no further environmental analysis is warranted.

## Section 2. Project Description

---

### A. Project Summary

Flores Fund, LLC, (the “Applicant”) proposes the construction of an eight-story mixed-use building with 77 multi-family residential units, including 8 Extremely Low-income units and 11,026 square feet of ground-floor commercial retail area. The unit mix would include 10 studio units, 35 one-bedroom units, 27 two-bedroom units, and 5 three-bedroom units. The building would include approximately 7,516 square feet of open space, including 5,328 square feet of non-credited open space including a podium courtyard, sky deck, fitness room, recreation rooms, and lounges. The proposed development would reach a maximum height of 100 feet above grade. The Proposed Project would include a total of 90,066 square feet of floor area, resulting in an approximate 4.66:1 FAR. The Proposed Project would provide 38 vehicle parking spaces on-site, 78 bicycle parking spaces, and 20 trees.

In order to facilitate the development of the proposed project, the applicant is requesting the following discretionary actions:

1. Pursuant to Los Angeles Municipal Code (LAMC) Section 12.24 U.26, a Conditional Use Permit to allow a Density Bonus for a housing development project in which the density increase is greater than otherwise permitted by LAMC Section 12.22 A.25;
2. Pursuant to LAMC Section 12.22 A.25, a Density Bonus to permit a housing development project containing a total of 77 dwelling units, [with 8 units – 15 percent of the base density set aside for Extremely Low Income Households], along with the following Off-Menu Incentives and Waivers of Development Standards:
  - a. An Off-Menu Incentive to permit a floor area ratio (FAR) of up to 4.66:1 in lieu of the 1.5:1 FAR otherwise permitted;
  - b. An Off-Menu Incentive to permit up to a 75 percent reduction in required open space;
  - c. An Off-Menu Incentive to permit a maximum building height of up to 100 feet, up to five (5) additional stories, in lieu of 45 feet, 3 stories, otherwise permitted;
  - d. A Waiver of Development Standards to permit a reduced westerly rear yard setback of 0 feet in lieu of 20 feet otherwise required;
  - e. A Waiver of Development Standards to waive the loading space requirement otherwise required pursuant to LAMC Section 12.21 A.6; and
3. Any additional actions as deemed necessary or desirable, including but not limited to grading, foundation, street closure(s), tree removal, haul route, and building permits.

## B. Environmental Setting

### 1. Project Location

The Project Site's addresses include: 8331, 8335, 8337, 8339, 8343, and 8349 W. 3<sup>rd</sup> Street, Los Angeles, CA 90048, with Assessor Parcel Number: 5511-016-016. The Project Site is located in the Wilshire Community Plan area within the City of Los Angeles. The Project Site's location within the City of Los Angeles and the greater Los Angeles region is depicted in Figure 1, Project Location Map.

The Project Site encompasses four parcels at the northwest corner of 3<sup>rd</sup> Street and Flores Street and includes approximately 19,339 square feet of lot area (0.44 acres). The Project Site is generally bounded by an alleyway and multi-family to the north, a vacant auto repair facility to the west, Flores Street and commercial buildings to the east, and 3<sup>rd</sup> Street and commercial buildings to the south.

The Project Site is located approximately 6.5 miles west of Downtown Los Angeles and approximately 8.3 miles west of the Pacific Ocean. Primary vehicular access to the Project Site is provided by the Santa Monica Freeway (I-10) located approximately 2.6 miles to the south and the Hollywood Freeway (US-101) located approximately 3.5 miles to the northeast of the Project Site. The City's Mobility Element of the General Plan (Mobility Plan 2035) classifies street designations in the project vicinity. Primary street access is provided by W. 3<sup>rd</sup> Street and Flores Street. West 3<sup>rd</sup> Street, which borders the Project Site to the south, is a two-way street providing two to three travel lanes in each direction. Within the Project area, W. 3<sup>rd</sup> Street is designated as an Avenue II roadway in the Mobility Plan 2035. South Flores Street, which borders the Project Site to the east, is a two-way street providing one travel lane in each direction. South Ogden Drive is designated as a Local Street - Standard in the Mobility Plan 2035. Street parking is provided along Flores Street and 3<sup>rd</sup> Street with some restrictions. Other major streets include Wilshire Boulevard, located approximately 0.6 miles to the south; San Vicente Boulevard, located approximately 0.3 miles to the west; Fairfax Avenue, located approximately 0.5 miles to the east; and Beverly Boulevard, located 0.2 miles to the north.

#### **Transit Priority Area**

In 2013, the State of California enacted Senate Bill 743 (SB 743), which provides that "aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." P.R.C. Section 21099 defines a "transit priority area" as an area within one-half mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." Public Resources Code Section 21064.3 defines "Major Transit Stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning

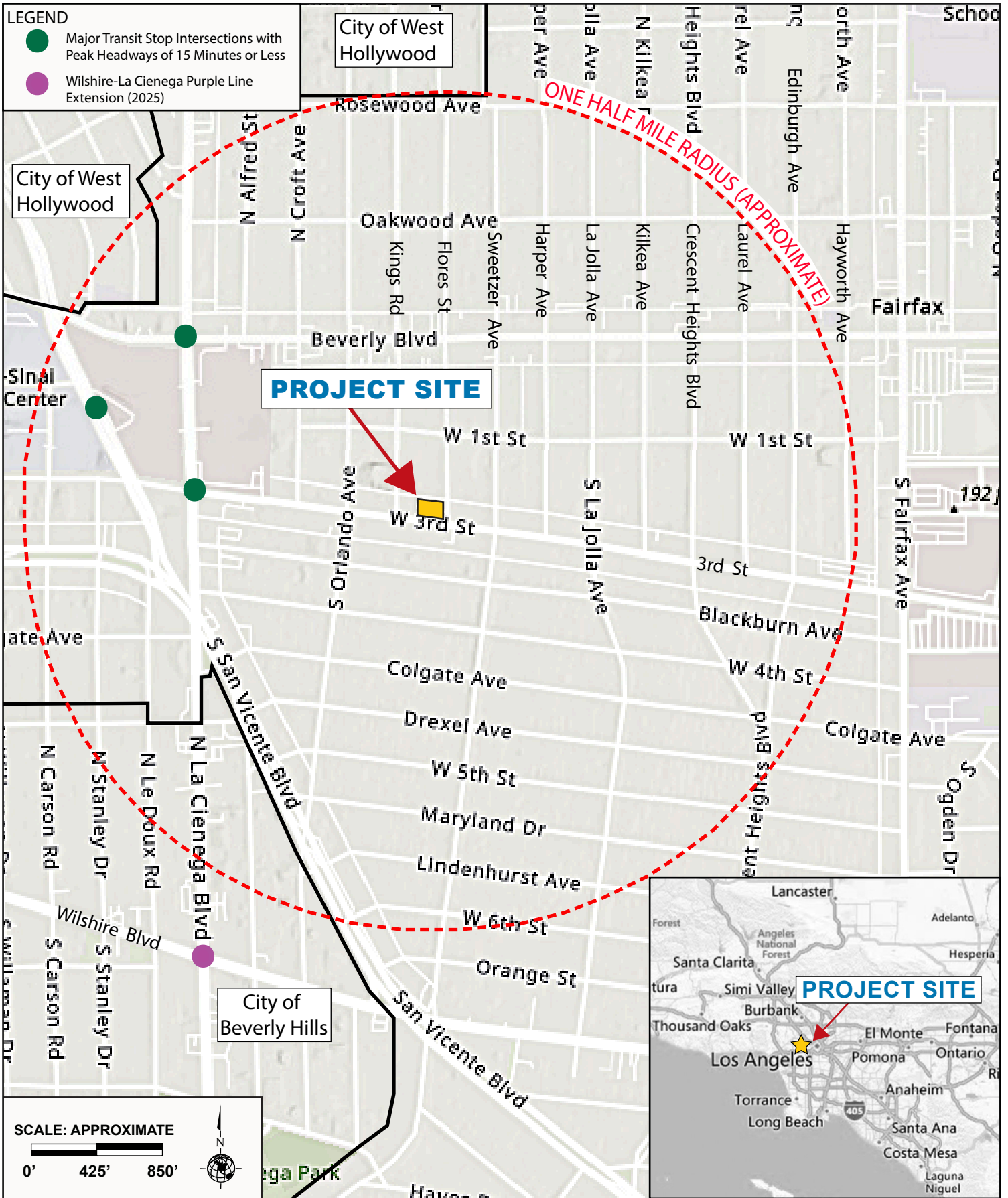


Figure 1  
Project Location Map

and afternoon peak commute periods.” Public Resources Code Section 21061.3 defines an “Infill Site” as a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins or is separated only by an improved public right-of-way from parcels that are developed with qualified urban uses.

The Project Site is an infill site within a Transit Priority Area as defined by CEQA.<sup>1</sup> The Los Angeles Metropolitan Transportation Authority (Metro) and Los Angeles Department of Transportation (LADOT) Transit operates multiple bus lines with multiple bus stops within walking distance from the Project Site. In the vicinity of the Project Site, bus stops are primarily located along 3<sup>rd</sup> Street, Beverly Boulevard, La Cienega Boulevard, and San Vicente Boulevard. Major transit stops that serve the Project Site include the Metro local bus lines 16 and 316, located on W. 3<sup>rd</sup> Street; Metro local bus line 14, located on Beverly Boulevard; and Metro local bus line 105, located on San Vicente Boulevard. Other Metro local bus lines not defined as a major transit stops include: Metro Lines 217, 218, and 617; LADOT DASH Fairfax line, and the West Hollywood Citylines Local East and Local West. The Project Site is also situated within easy walking distance to retail, restaurants, entertainment, and other commercial businesses located in the Los Angeles area.

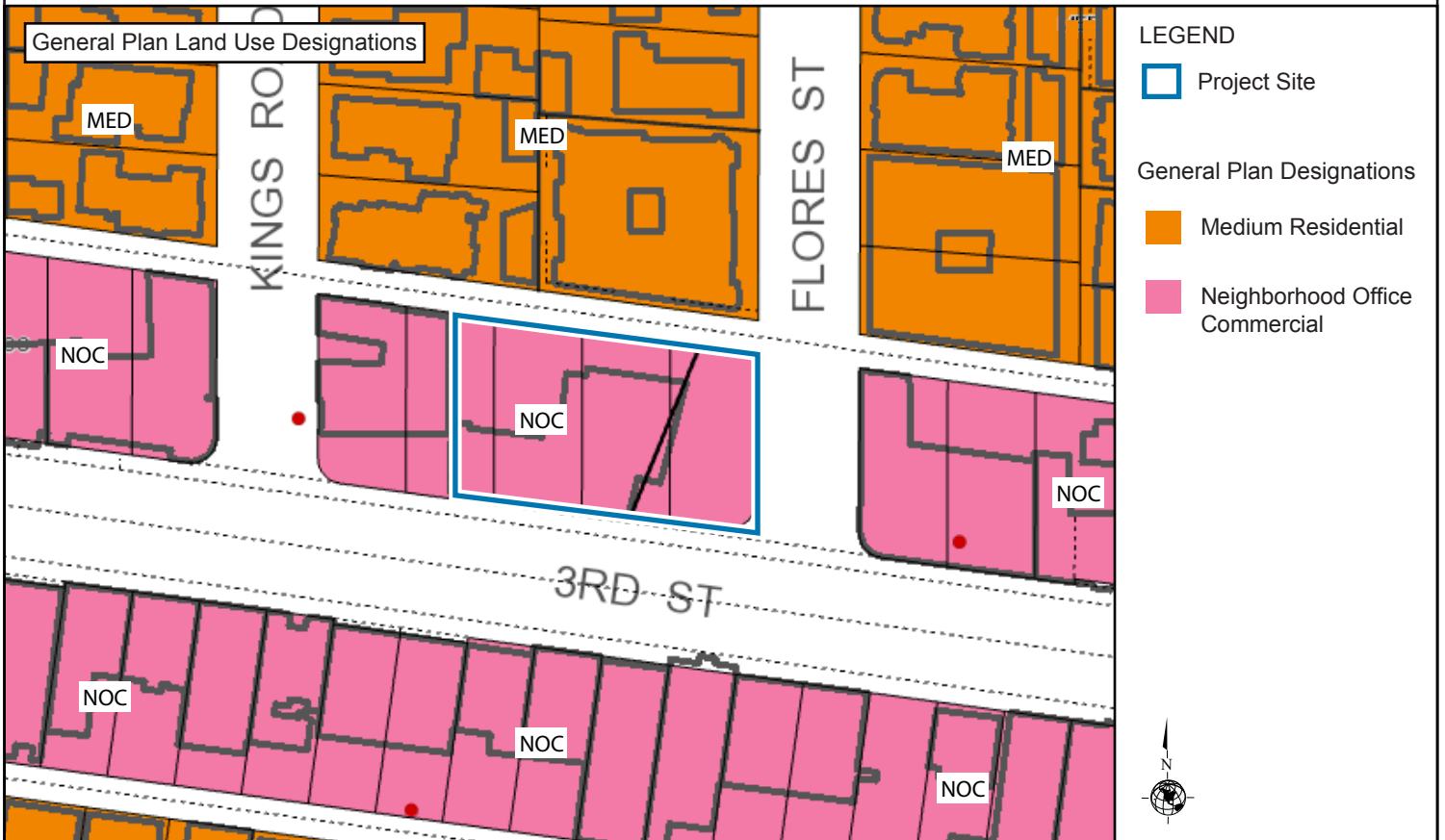
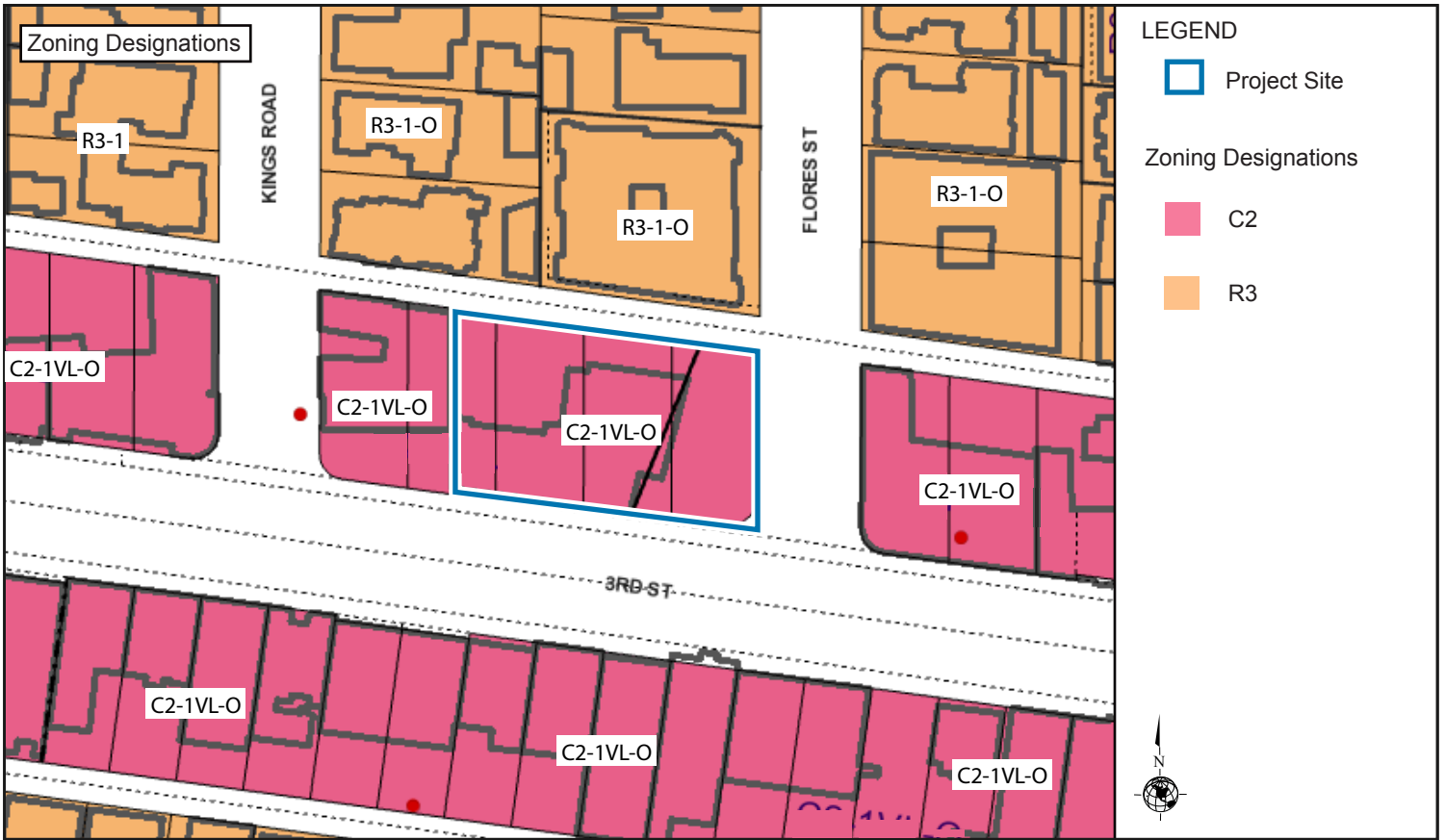
## 2. Existing Conditions

### 2.1 Zoning and Land Use Designations

Figure 2, Zoning and General Plan Land Use Designations, shows the existing zoning and General Plan land use designations on the Project Site and in the surrounding area. The Project Site is situated within the Wilshire Community Plan area of the City of Los Angeles. The LAMC defines the zoning across the Project Site as “C2-1VL-O” with a General Plan land use designation of “Neighborhood Office Commercial.” The “C2” Zone permits C1.5 uses, retail with limited manufacturing, service stations and garages, churches, schools, auto sales, and R4 uses. Pursuant to LAMC Section 12.13.5, residential uses associated with an R4 Zone (multi-family) are permitted in the C2 Zone provided that all regulations of the R4 Zone are complied with. The Project Site is located in Height District No. 1VL, which specifies a height limit of three stories and 45 feet; and development is limited to a floor area ratio (FAR) of 1.5:1. The “O” Zone overlay designation allows for oil well production uses. No oil drilling activities has historically occurred or currently occur on the Project Site. The Project Site is also located within a Transit Priority Area in the City of Los Angeles (ZI-2452).

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<sup>1</sup> *Public Resources Code Sections 21061.3 and 21099. See also City of Los Angeles, Department of City Planning, City of Los Angeles Zoning Information and Map Access System (ZIMAS), Parcel Profile Report, website: [www.zimas.lacity.org](http://www.zimas.lacity.org), accessed May 2023.*



Source: ZIMAS, City of Los Angeles, Department of City Planning, 2023.

Figure 2  
Zoning and General Plan Land Use Designations



### **2.1.1 Wilshire Community Plan**

The Project Site is located within the Wilshire Community Plan (Community Plan) area, which was last revised in September 2001. The Wilshire Community Plan area includes approximately 8,954 acres and has a pattern of low to medium density residential uses interspersed with areas of higher density residential uses. Long narrow corridors of commercial activity can be found along major streets including Wilshire Boulevard, Pico Boulevard, La Cienega Boulevard, Western Avenue, and Vermont Avenue. The Community Plan area east of Western Avenue contains large concentrations of higher-density residential neighborhoods surrounding the regional commercial area known as “Wilshire Center.” The Wilshire Community Plan area is often referred to as the Mid-City section of the City. The eastern edge of the approximately 2.5-mile wide by 6-mile long plan area is about 6 miles west of downtown Los Angeles, while the western edge abuts the City of Beverly Hills. The Wilshire Community Plan area is bounded by Melrose Avenue and Rosewood Avenue to the north; 18th Street, Venice Boulevard and Pico Boulevard to the south; Hoover Street to the east; and the cities of West Hollywood and Beverly Hills to the west. The Wilshire Community Plan aims to maintain the Community Plan area’s distinctive character by: Enhancing the positive characteristics of residential neighborhoods while providing a variety of housing opportunities; Improving the function, design and economic vitality of commercial areas; Preserving and enhancing the positive characteristics of existing uses which provide the foundation for community identity, such as scale, height, bulk, setbacks and appearance; Maximizing development opportunities around existing and future transit systems while minimizing adverse impacts; Preserving and strengthening commercial developments to provide a diverse job-producing economic base; and Improving the quality of the built environment through design guidelines, streetscape improvements, and other physical improvements which enhance the appearance of the community.

## **2.2 Existing Site Conditions**

Figure 3, Aerial Photograph of the Project Site and Surrounding Land Uses, shows an aerial view of the Project Site and identifies the photograph locations for the Project Site and surrounding land use photographs shown in Figure 4, Photographs of the Project Site. The Project Site consists of four parcels that was previously developed with a private school, which was approved for demolition in 2022 under the previous owner.<sup>2</sup> Thus, the Project Site was recently demolished and is currently vacant and surface graded. One mulberry tree is located on the Project Site, and three street trees (Australian willow) are located in the public right-of-way along 3<sup>rd</sup> Street.

## **3. Surrounding Land Uses**

As shown in Figure 2, the Project Site is in a commercially zoned “C2-1VL-O” area, and properties immediately bordering the Project Site are zoned C2-1VL-O with General Plan land use designations of Neighborhood Office Commercial, and R3-1 or R3-1-O with a General Plan land use designation of Medium Residential. The properties surrounding the Project Site include a mix of commercial land uses and multi-family residential buildings. These land uses range in height

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<sup>2</sup> *City of Los Angeles, Department of Building and Safety, Application Permit #22019-10000-04591, <https://www.ladbsservices2.lacity.org/OnlineServices/PermitReport/PcisPermitDetail?id1=22019&id2=10000&id3=04591>, accessed May 2023.*

from one- to four-stories above grade. Figure 3 shows an aerial photograph of the land uses surrounding the Project Site. Photographs of the land uses immediately surrounding the Project Site are provided in Figure 5, Photographs of the Surrounding Land Uses. Below is description of the existing conditions in the surrounding area.

North: The Project Site is immediately bordered by an alleyway to the north. Across the alleyway, are multi-family residential buildings ranging from two- to four-stories above grade. These properties are currently zoned R3-1-O with a General Plan land use designations of Medium Residential. Refer to Figure 5, Views 7 and 8.

West: The Project Site is immediately bordered by a vacant auto repair facility to the west. Further west is Kings Road and one-story commercial/retail land uses fronting 3<sup>rd</sup> Street. These properties to the west are zoned C2-1VL-O with General Plan land use designations of Neighborhood Office Commercial. Multi-family residences are located north of these properties to the northwest of the Project Site, fronting Kings Road. These residences are zoned R3-1 with General Plan land use designations of Medium Residential. Refer to Figure 5, Views 9 and 10.

East: The Project Site is immediately bordered by Flores Street to the east. Across Flores Street, are one-story commercial/retail land uses fronting 3<sup>rd</sup> Street. These properties to the east are zoned C2-1VL-O with General Plan land use designations of Neighborhood Office Commercial. Refer to Figure 5, View 11.

South: The Project Site is immediately bordered by 3<sup>rd</sup> Street to the south. Across 3<sup>rd</sup> Street, are one- to two-story commercial/retail land uses. These properties to the south are zoned C2-1VL-O with General Plan land use designations of Neighborhood Office Commercial. Refer to Figure 5, View 12.



Source: Google Earth, Aerial View, 2022.

Figure 3  
Aerial Photograph of the Project Site and Surrounding Land Uses



View 1: From the south side of 3rd Street, looking northwest at the Project Site.



View 2: From the south side of 3rd Street, looking northwest at the Project Site.



View 3: From the south side of 3rd Street, looking north at the Project Site.



View 4: From the east side of Flores Street, looking southwest at the Project Site.



View 5: From the east side of Flores Street, looking west at the Project Site and bordering alleyway.



View 6: From the north side of the bordering alleyway, looking southwest at the Project Site.

Source: Parker Environmental Consultants, June 26, 2023.

Figure 4  
Photographs of the Project Site  
Views 1-6



View 7: From the east side of Flores Street, looking northwest at the residential properties north of the Project Site.



View 8: From the west side of Kings Road, looking northeast at the residential properties north of the Project Site.



View 9: From the south side of 3rd Street, looking northwest at the vacant auto repair facility and commercial properties west of the Project Site.



View 10: From the west side of Kings Road, looking southeast at the vacant auto repair facility west of the Project Site.



View 11: From the south side of 3rd Street, looking northeast at the commercial properties east of the Project Site.



View 12: From the north side of 3rd Street, looking southeast at the commercial properties south of the Project Site.

Source: Parker Environmental Consultants, June 26, 2023.

Figure 5  
Photographs of the Surrounding Land Uses  
Views 7-12

## C. Description of Project

### 1. Project Overview

The Project would include the construction, use, and maintenance of an eight-story mixed-use multi-family residential and commercial building, with a total of 77 residential dwelling units and 11,026 square feet of ground-floor commercial space (“Proposed Project”). Eight (8) units would be reserved for families with “extremely low” income. The building would be a maximum height of 100 feet above grade. The Proposed Project includes a total floor area of 90,066 square feet, resulting in a FAR of 4.66:1. The Proposed Project would provide 38 vehicle parking spaces in Level 2 and Level 3 above grade. A summary of the Proposed Project is provided in Table 1, Proposed Development Program, below. The plan layout of the Proposed Project is depicted in Figure 6, Site Plan.

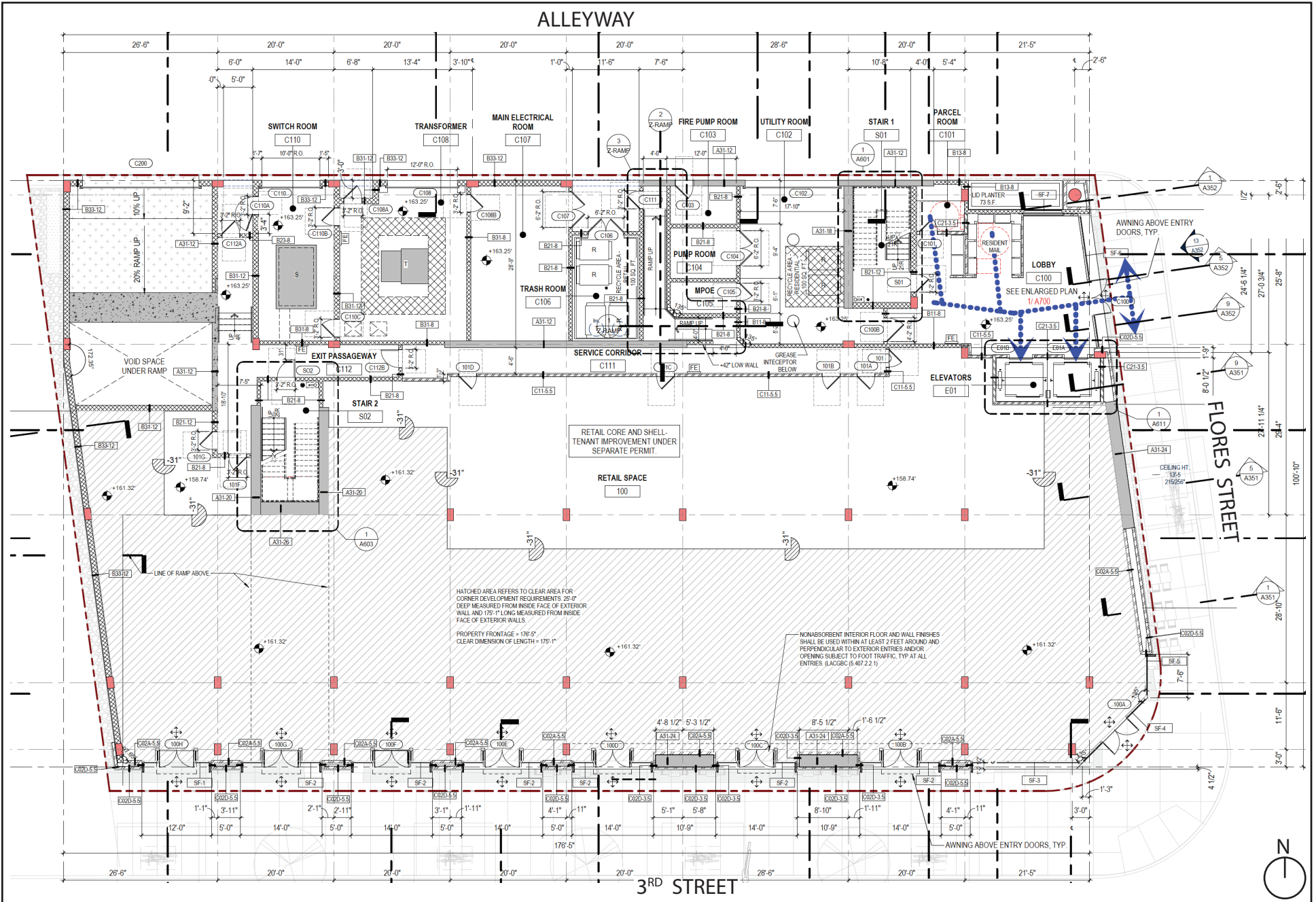
**Table 1  
Proposed Development Program**

Land Uses	Quantity	Proposed Floor Area (square feet)
<b>Proposed Project</b>		
<b>Residential (77 dwelling units)</b>		
Studio	10 du	79,040 sf <sup>a</sup>
One-Bedroom	35 du	
Two-Bedroom	27 du	
Three-Bedroom	5 du	
Total Units	77 du	
<b>Commercial (11,026 sf)</b>		
Retail	--	11,026 sf
<b>TOTAL:</b>		<b>90,066 sf (4.66:1 FAR)</b>
<i>Notes: du = dwelling unit; sf = square feet</i> <sup>a</sup> <i>Includes residential support areas such as amenities, lobby, and open space areas.</i> <i>Source: Next Architecture, December 11, 2023.</i>		

### **Residential Uses**

As shown in Table 1, above, the Proposed Project would include a maximum of 77 residential units. The unit mix would include 10 studio units, 35 one-bedroom units, 27 two-bedroom units, and five three-bedroom units. Ten percent of the proposed dwelling units (8 units) would be reserved for families with “extremely low” income. The proposed building would include a residential lobby located on the ground floor. Common residential open space would be located on the 3<sup>rd</sup> floor, 4<sup>th</sup> floor, and the 8<sup>th</sup> floor. The residential floor area totals approximately 79,040 square feet.





Source: Next Architecture, December 11, 2023.

Figure 7  
Level 1 Floor Plan



## **Commercial Uses**

As shown in Table 1, above, the Proposed Project would include approximately 11,026 square feet of ground floor retail space. The commercial spaces would front 3<sup>rd</sup> Street and Flores Street. The location of the retail space is illustrated in Figure 7, Level 1 Floor Plan.

### **2. Density**

The Project Site includes a net lot area of 19,339 square feet. Pursuant to LAMC Section 12.22 C.16, the area of one-half of the alley may be included for purposes of calculating density. With the additional one-half area of the alley (1,837 square feet), the total area for the density calculation is 21,175 square feet. Pursuant to LAMC Sections 12.14, density on a C2 lot must adhere to the required density in a R4 zone. As such, pursuant to LAMC Sections 12.11, residential uses on the Project Site are limited to one dwelling unit per 400 square feet, or approximately 53 dwelling units allowed for the Project Site.

New developments that utilize the Density Bonus Affordable Housing Incentive Program contained in LAMC Section 12.22 A.25 and that seek incentives that facilitate a density increase of greater than 35 percent must provide Restricted Affordable Units pursuant to LAMC Section 12.24 U.26 (a)(2) and follow the review procedures in LAMC Section 12.24 U.26. As such, in exchange for setting aside 15 percent of the base density as Extremely Low-Income housing units, the Proposed Project would be allowed an additional 10 percent increase in density in addition to the 35 percent permitted by LAMC Section 12.22 A.25. Thus, the Proposed Project requests a density bonus increase of 45 percent in order to allow 77 dwelling units. With approval of the density bonus and discretionary requests, the Proposed Project would provide a total of 77 dwelling units, including 8 Extremely Low-Income units.

### **3. Floor Area**

The Project Site includes a net lot area of 19,339 square feet. The Project Site is located in Height District No. 1VL, which sets a height limit of three stories and 45 feet above grade, and also limits development to a FAR of 1.5:1. The Applicant is requesting an Off-Menu Incentive under the Density Bonus Law to permit an increase in the allowable FAR from 1.5:1 to 4.66:1. The Proposed Project would include 90,066 square feet of building floor area, which would result in a 4.66:1 FAR.

### **4. Building Height**

As mentioned previously, the Project Site is located in Height District No. 1VL, which sets a height limit of three stories and 45 feet above grade, and also limits development to a FAR of 1.5. The Applicant is requesting an Off-Menu incentive to increase the allowable height from 45 feet to 100 feet and a story increase from three stories to eight stories. The height of the proposed structure would be 100 feet above grade and eight stories above grade. Figure 8 and Figure 9 depict the Proposed Project's building elevations. The Proposed Project's building sections are detailed in 10, Building Sections.



South Elevation



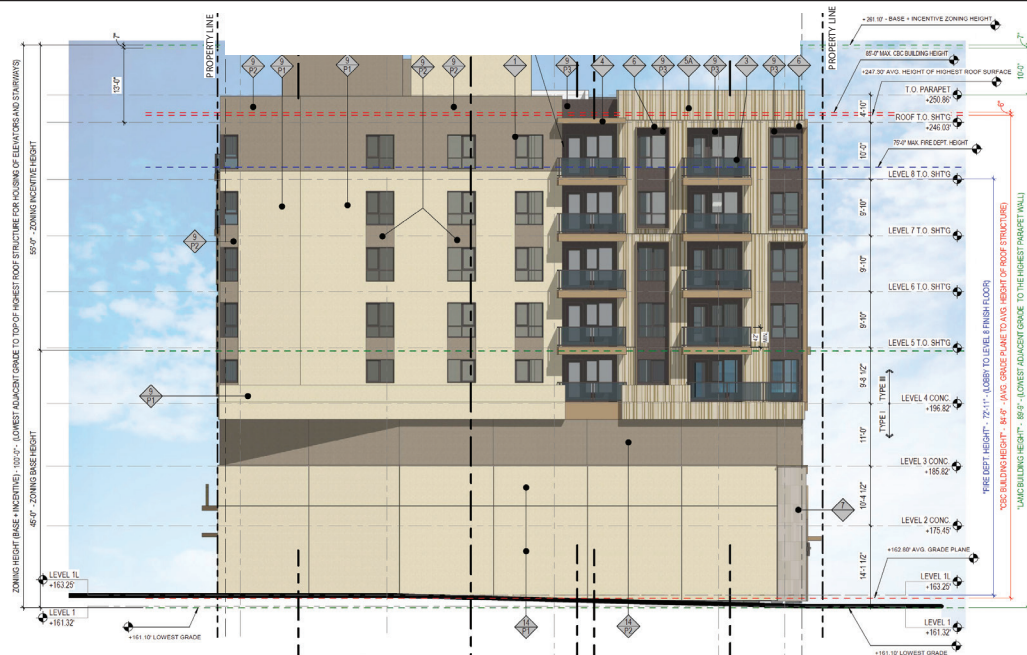
North Elevation

Source: Next Architecture, December 11, 2023.

Figure 8  
South and North Elevations



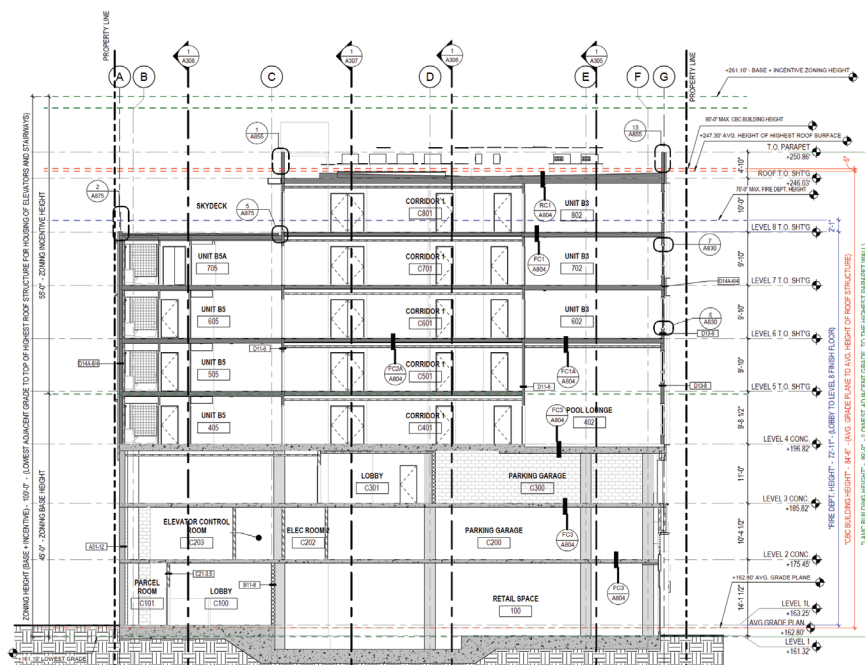
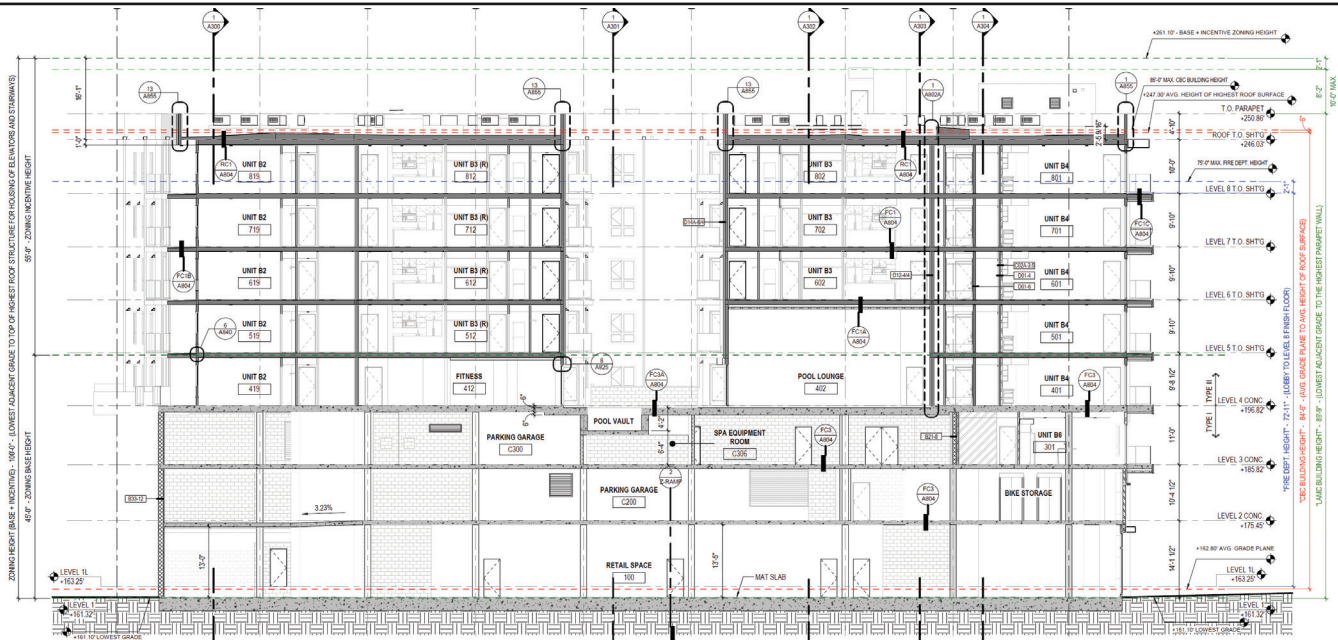
East Elevation



West Elevation

Source: Next Architecture, December 11, 2023.

Figure 9  
East and West Elevations



Source: Next Architecture, December 11, 2023.

Figure 10  
Building Sections



Source: Next Architecture, December 11, 2023.

Figure 11  
Architectural Rendering

## 5. Design and Architecture

The Proposed Project is an eight-story mixed-use multi-family residential and commercial building designed with modern architectural materials including rooftop solar zones and rooftop open space. The Proposed Project would be designed to meet all building standards, such as Title 24 of the California Administrative Code; and requirements of the LAMC, including the L.A. Green Building Code. See Figure 11 for the architectural rendering of the Proposed Project.

## 6. Setbacks

Pursuant to LAMC Section 12.22 A.18(c)(3), no yard requirements shall apply to the residential portions of buildings located on lots in a C2 zone used for combined commercial and residential uses, if such portions are used exclusively for residential uses, abut a street, private street or alley, and the first floor of such buildings at ground level is used for commercial uses or for access to the residential portions of such buildings. Therefore, the Proposed Project would not be required to provide setbacks abutting 3<sup>rd</sup> Street, Flores Street, and the alleyway. The western side yard would be required to comply with LAMC Section 12.11 C, which requires rear yard setbacks to be a minimum 15 feet with one additional foot added for every floor above the third level. As such, the Proposed Project is required to provide a zero-foot front yard setback, zero-foot side yard setback along the western property line, a zero-foot side yard setback along the eastern property line, and a 20-foot rear yard setback. The Applicant is requesting a Waiver of Development Standards to provide a zero-foot rear setback in lieu of 20 feet on the western property line. Thus, the Proposed Project would provide a one-foot front yard setback along the eastern property line, a five-foot rear yard setback on the western property lines, a one-foot side yard setback on the northern property line, and a two-foot side yard setback along the southern property line.

## 7. Open Space and Landscaping

The open space requirements and amount of open space for the Proposed Project are summarized in Table 2, Summary of Required and Proposed Open Space Areas, below. Pursuant to the LAMC, the Proposed Project would be required to provide at a minimum the following usable open space per dwelling unit: 100 square feet for each unit having less than three habitable rooms (studios and one-bedrooms); 125 square feet for each unit having three habitable rooms (two-bedrooms); and 175 square feet for each unit having more than three habitable rooms (three-bedrooms or more). As such, the total amount of open space required by the LAMC is approximately 8,750 square feet. The Applicant is requesting a 75 percent open space reduction through a Waiver of Development Standard. With a reduction, the Proposed Project would be required to provide 2,188 square feet of residential open space. As such, the Proposed Project would provide a total of 2,188 square feet of open space, which includes a courtyard, sky deck, fitness room, business center, and aqua lounge. The Proposed Project would also provide 5,328 square feet of non-credited open space that would not be counted towards open space required by the LAMC. This non-credited open space includes private balconies and additional space to the podium courtyard, sky deck, business lounge, fitness room, and aqua lounge. Therefore, the Proposed Project would provide a total of 7,516 square feet of total open space.

As part of the open space requirements, the Proposed Project requires planting trees at a rate of one tree for every four dwelling units for a total of 20 required trees. The Proposed Project would provide 20 trees on-site, which is consistent with LAMC requirements. There are three street trees fronting 3<sup>rd</sup> Street that would remain during construction of the Project Site.

**Table 2  
Summary of Required and Proposed Open Space Areas**

<b>LAMC Open Space Requirements</b>	<b>Dwelling Units</b>	<b>Open Space (square feet)</b>
Less than 3 Habitable Rooms (100 sf/du) <sup>a</sup>	45	4,500
Equal to 3 Habitable Rooms (125 sf/du) <sup>b</sup>	27	3,375
More than 3 Habitable Rooms (175 sf/du) <sup>c</sup>	5	875
<b>Subtotal Required:</b>		<b>8,750 sf</b>
75% Reduction: <sup>d</sup>		(6,562)
<b>Total Required:</b>		<b>2,188 sf</b>
<b>Proposed Credited Open Space</b>	<b>Open Space (square feet)</b>	
Podium Courtyard	745	
Sky Deck	909	
Fitness Room	178	
Business Center	178	
Aqua Lounge	178	
<b>Total Credited Open Space Provided:</b>	<b>2,188 sf</b>	
<b>Proposed Non-Credited Open Space</b>	<b>Open Space (square feet)</b>	
Podium Courtyard	855	
Sky Deck	0	
Fitness Room	802	
Business Center	778	
Aqua Lounge	793	
Private Balconies	2,101	
<b>Total Non-Credited Open Space Provided:</b>	<b>5,328 sf</b>	
<b>Total Open Space Provided:</b>	<b>7,516 sf</b>	
<p><i>Notes: du = dwelling unit; sf = square feet</i></p> <p><sup>a</sup> <i>Includes the proposed studio and one-bedroom units.</i></p> <p><sup>b</sup> <i>Includes the proposed two-bedroom units.</i></p> <p><sup>c</sup> <i>Includes the proposed three-bedroom units.</i></p> <p><sup>d</sup> <i>The Applicant is requesting a 75% reduction in open space through a waiver of development standards.</i></p> <p><i>Source: Next Architecture, December 11, 2023.</i></p>		

## 8. Access, Circulation, and Parking

### **Vehicle Parking**

The Proposed Project meets all of the criteria of a Transit Oriented Infill Project pursuant to SB 743. SB 743, now codified as law under Public Resources Code 21099 provides that “aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.” Accordingly, the Proposed Project’s parking impacts shall not be considered significant impacts on the environment as a matter of law under Public Resources Code Section 21099. The following discussion is therefore provided for zoning consistency purposes only.

Parking for the proposed commercial uses on-site would be provided within on the second and third level of the Proposed Project. Vehicular access to the parking garage would be provided via a full-access driveway from the northern alleyway.

As shown in Table 3 below, pursuant to AB 2097, no residential and non-residential parking would be required. AB 2097 prohibits a public agency from imposing or enforcing any minimum automobile parking requirement on any residential, commercial, or other development that is within ½-mile of a major transit stop. Thus, the Proposed Project would not provide vehicular parking spaces for its residential uses but would provide 38 vehicle parking spaces for the commercial uses.

**Table 3  
Summary of Required and Proposed Vehicle Parking Spaces**

Description	Quantity	Spaces Required <sup>a</sup>	Spaces Provided
Residential	77 du	0	0
Commercial/retail	11,026 sf	0	38
<b>Total Parking:</b>		<b>0</b>	<b>38</b>
<i>Notes: du = dwelling unit; sf = square feet</i>			
<i><sup>a</sup> No residential or non-residential parking required pursuant to AB 2097.</i>			
<i>Source: Next Architecture, December 11, 2023.</i>			

### **Bicycle Parking**

The Proposed Project would provide on-site bicycle parking in bicycle storage spaces located throughout the vehicle parking areas. As required by Section 12.21 A.16 of the LAMC, the short-term parking rate requires one parking space per 10 dwelling units for the first 25 dwelling units, and one parking space per 15 units for units 26 to 100. The long-term parking rate requires one parking space per dwelling unit for the first 25 dwelling units and one parking space per 1.5 units for units 26 to 100. As shown in Table 4, below, the Proposed Project is required to supply 60 long-term residential bicycle parking spaces and 6 short-term bicycle parking spaces, for a total of 66 residential bicycle parking spaces. For the commercial uses, the Proposed Project would be required to provide one bicycle parking space per 2,000 square feet of retail space, with a minimum of two spaces for both short- and long-term parking, per LAMC 12.21 A.16(a)(2). Therefore, the



Proposed Project is required to provide 6 short-term and 6 long-term bicycle parking spaces for its commercial uses, for a total of 12 bicycle parking spaces. Thus, the Proposed Project would be required to provide a total of 78 bicycle parking spaces. The Proposed Project would provide 78 bicycle parking spaces.

**Table 4  
Summary of Required and Proposed Bicycle Parking Spaces**

Description	Quantity	Parking Required		Total Spaces Required	Total Spaces Provided
		Short Term	Long Term		
<b>Residential (77 du) <sup>a,b,c</sup></b>					
Units 1-25	25 du	2.5	25	--	--
Units 26-77	52 du	3.5	35	--	--
<b>Subtotal Residential:</b>		<b>6</b>	<b>60</b>	<b>66</b>	<b>66</b>
<b>Commercial <sup>d</sup></b>					
Retail	11,026 sf	6	6	--	--
<b>Subtotal Commercial:</b>		<b>6</b>	<b>6</b>	<b>12</b>	<b>12</b>
<b>TOTAL:</b>		<b>12</b>	<b>66</b>	<b>78</b>	<b>78</b>
<i>Notes: du = dwelling unit, sf = square feet</i> <sup>a</sup> LAMC 12.21 A.16.(a)(1)(i). <sup>b</sup> Short-term bicycle rates for residential uses are as follows: 1 space per 10 units for first 25 units and 1 space per 15 units for units 26-100. <sup>c</sup> Long-term bicycle rates for residential units are as follows: 1 space per unit for first 25 units and 1 space per 1.5 units for units 26-100. <sup>d</sup> LAMC 12.21 A.16.(a)(2). One short-term and long-term stall for every 2,000 square feet. Source: Next Architecture, December 11, 2023.					

### 9. Lighting and Signage

Exterior lighting features within the Proposed Project would consist of low level illuminated pedestrian walkways and lighting within common open space areas, parking areas, and outdoor courtyards. On-site signage would include site identity and wayfinding signs in accordance with the LAMC.

### 10. Site Security

Security for the Proposed Project would be provided via site planning and secured access points of entry. The plans for the Proposed Project would incorporate security design measures for semi-public and private spaces, which may include but not be limited to access control to the building, secured parking facilities, walls/fences with key systems, well-illuminated public and semi-public space designed with a minimum of dead space to eliminate areas of concealment, and location of building entrances in high-foot traffic areas.

### 11. Sustainability Features

The Proposed Project would also be required to comply with the L.A. Green Building Code. The L.A. Green Building Code, effective January 1, 2023, requires the use of numerous conservation measures, beyond those required by Title 24 of the California Administrative Code. The L.A. Green Building Code contains both mandatory and voluntary green building measures to conserve energy. Among many requirements, the L.A. Green Building Code requires projects to achieve a

20 percent reduction in wastewater generation, provide rooftop solar zones, and provide a specific number of electric vehicle (EV)-ready and EV-charging stations. Therefore, compliance with Title 24 of the California Administrative Code and the L.A. Green Building Code would reduce the Proposed Project's energy consumption.

## 12. Anticipated Construction Schedule

For purposes of analyzing impacts associated with air quality, this analysis assumes a Project construction schedule of approximately 24 months, with final buildout occurring in 2027. Construction activities associated with the Proposed Project would be undertaken in three phases: (1) grading/excavation; (2) building construction; and (3) finishing and architectural coatings. All construction activities would be performed in accordance with all applicable state and federal laws and City Codes and policies with respect to building construction and activities. As provided in Section 41.40 of LAMC, the permissible hours of construction within the City are 7:00 A.M. to 9:00 P.M. Monday through Friday, and between 8:00 A.M. and 6:00 P.M. on any Saturday or national holiday. No construction activities are permitted on Sundays. The Proposed Project would comply with these restrictions. Unless stated otherwise, all construction activities would be performed in accordance with all applicable state and federal laws and City Codes and policies with respect to building construction and activities.

### ***Grading and Foundation Phase***

Since the Project Site contains a surface graded lot, this phase would include grading and preparation to ensure the proper base and slope for the building foundations. Up to six feet of existing soils within the footprint area of the proposed structure would be excavated and properly compacted for foundation and slab support. In addition, this phase would include the removal of on-site trees and associated debris to construct the eight-story mixed-use residential and commercial building. This phase estimates approximately 5,000 cubic yards (cy) of soil export would be removed and hauled off-site.<sup>3</sup> The grading phase would be completed in approximately two months.

### ***Building Construction Phase***

The building construction phase is expected to occur for approximately 18 months. The building construction phase includes the construction of the proposed building, connection of utilities to the building, building foundations, laying irrigation for landscaping, and landscaping the Project Site.

### ***Finishing/Architectural Coating Phase***

The finishing/architectural coating phase is expected to occur over approximately four months. During this phase, interior cabinets and lighting fixtures would be installed, interior and exterior

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<sup>3</sup> *The proposed cubic yard (cy) export was estimated by multiplying the 19,339 square-foot Project Site by a depth of 6 feet, then converting cubic feet to cubic yards ( $19,339 \text{ sf} \times 6 \text{ ft} / 27 = 4,297 \text{ cy}$ ). The estimated cy was then rounded up to 5,000 cy as a conservative estimate.*

wall finishing's and paint would be applied, and the installation of windows, doors, cabinetry, and appliances within the residential and commercial spaces.

### ***Temporary Right-of-Way Encroachment***

Most construction activities for the Proposed Project are anticipated to be contained within the Project Site. However, the construction activities may encroach into the parking/buffer lane along 3<sup>rd</sup> Street or Flores Street. This construction activity would not require the closure of travel lanes along these streets. Additionally, Proposed Project construction activities may require the short-term closure of the sidewalk along 3<sup>rd</sup> Street and Flores Street in front of the Project Site. Although the sidewalk closures would block pedestrian access routes along the north side of 3<sup>rd</sup> Street and west side of Flores Street, the presence of a sidewalk on the other side of these streets and the presence of crosswalks at this intersection would continue to ensure pedestrian connectivity around the Project Site. Additionally, construction activities would not interfere with transit circulation.

The Proposed Project would be required to prepare a Construction Staging and Traffic Management Plan, to be approved by the LADOT in connection with the Proposed Project's plan check and permitting process. This plan will detail the measures during construction related to designated haul routes and staging areas, traffic control procedures, emergency access provisions, and construction crew parking. The Proposed Project shall obtain prior LADOT approval for any lane closures, detours, on-street staging areas, or other temporary changes in traffic control due to construction activities and will enact appropriate temporary traffic control procedures. Haul routes for Project construction will be coordinated with the City of Los Angeles Department of Building and Safety (LADBS), as needed, to minimize the impact of construction traffic to congested roadways and residential streets.

### ***Haul Route***

The Proposed Project would not require a haul route application since the Project Site is not located within a special grading area by the Los Angeles Bureau of Engineering. As mentioned previously, the Proposed Project would require approximately 5,000 cy of soil to be hauled off-site in order to ensure the proper base and slope for the building foundations. For purposes of analyzing the construction-related impacts, it is anticipated that the excavation and soil export would involve haul trucks with up to a 14 cubic yard hauling capacity and would be disposed at Azusa Land Reclamation, at 1211 W. Gladstone Street, which accepts inert waste. All truck staging would either occur on-site or at designated off-site locations and radioed into the site to be filled. Hauling hours are anticipated to be 10:00 AM to 4:00 PM, Monday through Friday.

All construction debris would be recycled to the maximum extent feasible. Construction debris and soil materials from the Project Site that cannot be recycled or diverted would be hauled to the Sunshine Canyon Landfill, which accepts construction and demolition debris and inert waste from areas within the City of Los Angeles. The Sunshine Canyon Landfill is approximately 30 miles north of the Project Site (approximately 60 miles round trip). For recycling efforts, Downtown Diversion (operated by Waste Management, Inc.) accepts construction waste for recycling and is

located approximately 12 miles southeast of the Project Site (approximately 24 miles round trip).<sup>4</sup> Construction debris generated during the building construction phase would be hauled to the Downtown Diversion station for processing, recycling, and reclamation. Any waste materials not suitable for diversion would likely be disposed of at the Sunshine Canyon Landfill facility.

## D. Requested Permits and Approvals

The list below includes the anticipated requests for approval of the Proposed Project:

In order to facilitate the development of the proposed project, the applicant is requesting the following discretionary actions:

1. Pursuant to Los Angeles Municipal Code (LAMC) Section 12.24 U.26, a Conditional Use Permit to allow a Density Bonus for a housing development project in which the density increase is greater than otherwise permitted by LAMC Section 12.22 A.25;
2. Pursuant to LAMC Section 12.22 A.25, a Density Bonus to permit a housing development project containing a total of 77 dwelling units, [with 8 units – 15 percent of the base density set aside for Extremely Low Income Households], along with the following Off-Menu Incentives and Waivers of Development Standards:
  - a. An Off-Menu Incentive to permit a floor area ratio (FAR) of up to 4.66:1 in lieu of the 1.5:1 FAR otherwise permitted;
  - b. An Off-Menu Incentive to permit up to a 75 percent reduction in required open space;
  - c. An Off-Menu Incentive to permit a maximum building height of up to 100 feet, up to five (5) additional stories, in lieu of 45 feet, 3 stories, otherwise permitted;
  - d. A Waiver of Development Standards to permit a reduced westerly rear yard setback of 0 feet in lieu of 20 feet otherwise required;
  - e. A Waiver of Development Standards to waive the loading space requirement otherwise required pursuant to LAMC Section 12.21 A.6; and
3. Any additional actions as deemed necessary or desirable, including but not limited to grading, foundation, street closure(s), tree removal, haul route, and building permits.

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<sup>4</sup> *Construction and Demolition Debris Recycling Facilities in Los Angeles County, website: [https://dpw.lacounty.gov/epd/CD/cd\\_attachments/Recycling\\_Facilities.pdf](https://dpw.lacounty.gov/epd/CD/cd_attachments/Recycling_Facilities.pdf), accessed May 2023.*

## Section 3. Evaluation of Class 32 Criteria

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Every discretionary action requires environmental review pursuant to CEQA. However, the CEQA Guidelines (Sections 15300 to 15332) include a list of classes of projects, which have been determined to not have a significant effect on the environment, known as Categorical Exemptions. If a project falls within one of these classes, it is exempt from the provisions of CEQA, and no further environmental review is required. The Class 32 “Infill” Categorical Exemption (CEQA Guideline Section 15332), hereafter referred to as the Class 32 Exemption, exempts infill development within urbanized areas if it meets certain criteria. The class consists of infill projects that are consistent with the local General Plan and Zoning requirements. This class is not intended for projects that would result in any significant traffic, noise, air quality, or water quality impacts. It may apply to residential, commercial, industrial, and/or mixed-use projects. As supported by the information presented herein, the Proposed Project falls under the Class 32 Exemption since it is an in-fill development.

A Class 32 Exemption applies to a project characterized as in-fill development meeting the conditions described below:

- a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.
- b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.
- c) The project site has no value as habitat for endangered, rare or threatened species.
- d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
- e) The site can be adequately served by all required utilities and public services.

As presented herein, the Proposed Project qualifies for a Class 32 Infill Development Project under the P.R.C. 21000-21189.2 (CEQA), and the State CEQA Guidelines (C.C.R. Title 14, Division 6, Chapter 3, 15000-15387). The Proposed Project meets all of the criteria necessary to qualify for a CEQA Exemption as a Class 32 (Infill Development Project) pursuant to CEQA Guideline Section 15332, respectively, and no significant environmental impacts would result from any unusual circumstances. Therefore, no further environmental analysis is warranted.

### **A. Supporting Analysis for a Class 32 Categorical Exemption**

Consistent with the State CEQA Guidelines and the Department of City Planning’s policies for implementing CEQA, the following assessment provides substantial evidence to support the determination that the Proposed Project meets the above criteria, pursuant to the Class 32 (Infill Development) requirements as set forth in Section 15332 of the State CEQA Guidelines.

- a) **The Proposed Project is consistent with the applicable General Plan designation and all applicable General Plan policies as well as with applicable zoning designation and regulations.**

The Project Site is subject to the zoning codes and design regulations of the LAMC. The Project Site is located within the Wilshire Community Plan area and a Transit Priority Area in the City of Los Angeles (ZI-2452).

### **Zoning Designations and Regulations**

#### *Los Angeles Municipal Code (LAMC)*

Development within the City is guided by the City of Los Angeles Planning and Zoning Code (LAMC, Chapter 1, Articles 1-9), which governs land use through specific development and design standards (i.e., allowable uses, density, building height, building setbacks, etc.) for individual properties. The Project Site has a General Plan land use designation of Neighborhood Office Commercial and is currently zoned as C2-1VL-O. The “C2” designation corresponds with the existing General Plan land use designation. The Project Site is located in Height District No. 1VL, which establishes a maximum building height of 45 feet and three stories and limits the floor area ratio (FAR) to 1.5:1. The Proposed Project would be consistent with the zoning and land use designations on site pursuant to the LAMC and General Plan. The “O” designation indicates a supplement use district for oil drilling. No oil drilling activities has historically occurred or currently occur on the Project Site, and no oil drilling activities are being proposed as part of the Proposed Project.

#### *Land Use*

The Proposed Project includes the construction of an eight-story mixed-use residential and commercial building with 77 multi-family dwelling units and 11,026 square feet of commercial space. Of the proposed dwelling units, 15 percent of the base units (8 units) would be reserved at the Extremely Low-Income level. The Project Site is zoned C2-1VL-O with a General Plan land use designation of Neighborhood Office Commercial. Pursuant to LAMC Section 12.14.1, the Proposed Project’s mixed-use residential and commercial development is allowed on a C2 zone. As such, the Proposed Project is consistent with the C2 zone, and the corresponding General Plan land use designations, which allow for the proposed multi-family residential and commercial development. The Proposed Project is appropriate in this location to promote new housing and provide the City with much needed affordable housing. Therefore, the Proposed Project would conform to the allowable land uses pursuant to the LAMC.

#### *Floor Area Ratio*

The Project Site includes a net lot area of 19,339 square feet. The Project Site is located in Height District No. 1VL, which sets a height limit of three stories and 45 feet above grade, and also limits development to a FAR of 1.5:1. The Applicant is requesting an Off-Menu Incentive under the Density Bonus Law to permit an increase in the allowable FAR from 1.5:1 to 4.66:1. The Proposed

Project would include 90,066 square feet of building floor area, which would result in a 4.66:1 FAR. With approval of the discretionary requests, the Proposed Project would be consistent with the FAR provisions of the LAMC.

### *Height*

As mentioned previously, the Project Site is located in Height District No. 1VL, which sets a height limit of three stories and 45 feet above grade, and also limits development to a FAR of 1.5. The Applicant is requesting an Off-Menu incentive to increase the allowable height from 45 feet to 100 feet and a story increase from three stories to eight stories. The height of the Project's proposed structures would be 100 feet above grade and eight stories above grade. With approval of the discretionary requests, the Proposed Project would be consistent with the height provisions of the LAMC.

### *Density*

The Project Site includes a net lot area of 19,339 square feet. Pursuant to LAMC Section 12.22 C.16, the area of one-half of the alley may be included for purposes of calculating density. With the additional one-half area of the alley (1,837 square feet), the total area for the density calculation is 21,175 square feet. Pursuant to LAMC Sections 12.14, density on a C2 lot must adhere to the required density in a R4 zone. As such, pursuant to LAMC Sections 12.11, residential uses on the Project Site are limited to one dwelling unit per 400 square feet, or approximately 53 dwelling units for the Project Site.

New developments that utilize the Density Bonus Affordable Housing Incentive Program contained in LAMC Section 12.22 A.25 and that seek incentives that facilitate a density increase of greater than 35 percent must provide Restricted Affordable Units pursuant to LAMC Section 12.24 U.26 (a)(2) and follow the review procedures in LAMC Section 12.24 U.26. As such, in exchange for setting aside 15 percent of the base density as Extremely Low-Income housing units, the Proposed Project would be allowed an additional 10 percent increase in density in addition to the 35 percent permitted by LAMC Section 12.22 A.25. The Proposed Project requests a density bonus increase of 45 percent in order to allow 77 dwelling units. With approval of the density bonus and discretionary requests, the Proposed Project would provide a total of 77 dwelling units, including 8 Extremely Low-Income units. Therefore, the Proposed Project would be consistent with the allowed density on the Project Site.

### *Setbacks*

Pursuant to LAMC Section 12.22 A.18(c)(3), no yard requirements shall apply to the residential portions of buildings located on lots in a C2 zone used for combined commercial and residential uses, if such portions are used exclusively for residential uses, abut a street, private street or alley, and the first floor of such buildings at ground level is used for commercial uses or for access to the residential portions of such buildings. Therefore, the Proposed Project would not be required to provide setbacks abutting 3<sup>rd</sup> Street, Flores Street, and the alleyway. The western side yard would be required to comply with LAMC Section 12.11 C, which requires rear yard setbacks to be a

minimum 15 feet with one additional foot added for every floor above the third level. As such, the Proposed Project is required to provide a zero-foot front yard setback, zero-foot side yard setback along the western property line, a zero-foot side yard setback along the eastern property line, and a 20-foot rear yard setback. The Applicant is requesting a Waiver of Development Standards to provide a zero-foot rear setback in lieu of 20 feet on the western property line. Thus, the Proposed Project would provide a one-foot front yard setback along the eastern property line, a five-foot rear yard setback on the western property lines, a two-foot side yard setback on the southern property line, and a one-foot side yard setback along the northern property line. With approval of the discretionary requests, the Proposed Project would be consistent with the required setbacks of the LAMC.

### *Parking*

#### *Vehicle Parking*

Because the Proposed Project is an infill project in a Transit Priority Area, the Proposed Project's potential parking impacts shall not be considered significant impacts on the environment pursuant to P.R.C. Section 21099. As such, the following parking consistency analysis is provided for informational purposes.

Parking for the Proposed Project would be provided on the second and third level of the Proposed Project. Vehicular access to the parking garage would be provided via a full-access driveway along the adjacent alleyway. Pursuant to AB 2097, no residential and non-residential parking would be required. AB 2097 prohibits a public agency from imposing or enforcing any minimum automobile parking requirement on any residential, commercial, or other development that is within ½-mile of a major transit stop. Thus, the Proposed Project would not provide vehicular parking spaces for its residential uses but would provide 38 vehicle parking spaces for the commercial uses. Thus, the Proposed Project would be consistent with the applicable parking requirements.

#### *Bicycle Parking*

Pursuant to the LAMC, the Proposed Project would be required to provide 1 short-term parking space for each 10 units for the first 25 units, and 1 additional short-term parking space for the next 75 units. In addition, the Proposed Project would be required to provide 1 long-term parking space for each unit for the first 25 units, and 1.5 additional long-term parking spaces for the next 75 units. At 77 dwelling units, the Proposed Project is required to provide 66 long-term and 12 short-term bicycle parking spaces, for a total of 78 bicycle parking spaces. The Proposed Project would provide 78 bicycle parking spaces throughout the ground level and in the proposed parking areas. Therefore, the Proposed Project would be consistent with the required bicycle parking spaces pursuant to the LAMC.

### *Open Space*

Pursuant to the LAMC, the Proposed Project would be required to provide 100 square feet of open space for each residential dwelling unit with less than three habitable rooms (studio units and one-



bedroom units); 125 square feet for each dwelling unit equal to three habitable rooms (two-bedroom units); and 175 square feet for each dwelling unit with more than three habitable rooms (three-bedroom units). Based on the proposed unit count, the total amount of open space required by the LAMC is 8,750 square feet.

The Applicant is requesting a 75 percent open space reduction through a Waiver of Development Standard. With a reduction, the Proposed Project would be required to provide 2,188 square feet of residential open space. As such, the Proposed Project would provide a total of 2,188 square feet of open space, which includes a courtyard, sky deck, fitness room, business center, aqua lounge, and private balconies. As part of the open space requirements, the residential component of the Proposed Project includes planting trees at a rate of one tree for every four dwelling units for a total of 20 required trees. The Proposed Project would provide a minimum of 20 trees on-site to be consistent with the LAMC. Thus, with approval of the discretionary requests, the Proposed Project would be consistent with the open space requirements of the LAMC.

The Proposed Project would not conflict with the requirements and allowable land uses in the LAMC with approval of the discretionary requests. The Proposed Project would be consistent with the criteria for mixed-use uses in commercial zones. The Proposed Project would revitalize a site with the development of an eight-story mixed-use residential and commercial building. The Proposed Project's land uses are consistent with the surrounding neighborhood that is characterized by a mix of commercial and residential land uses. Additionally, the Proposed Project is consistent with the Project Site's zoning (C2-1VL-O) and land use designation (Neighborhood Office Commercial). The Proposed Project meets the design and location criteria required by the LAMC. Therefore, the Proposed Project would be consistent with on-site zoning and land use designation pursuant to the LAMC, and a less than significant impact would occur.

### ***Wilshire Community Plan***

The Proposed Project is consistent with the City of Los Angeles General Plan Land Use Element, which consists of 35 Community Plan Areas. The Project Site is located in the Wilshire Community Plan area. The plan area is bounded by Melrose Avenue and Rosewood Avenue to the north; 18<sup>th</sup> Street, Venice Boulevard and Pico Boulevard to the south; Hoover Street to the east; and the Cities of West Hollywood and Beverly Hills to the west. The Wilshire Community Plan Area has a pattern of low to medium density residential uses interspersed with areas of higher density residential uses. Long narrow corridors of commercial activity can be found along major streets including Wilshire, Pico, La Cienega, Western and Vermont. The plan area east of Western Avenue contains large concentrations of higher-density residential neighborhoods surrounding the regional commercial area known as Wilshire Center. The Community Plan provides goals and objectives to establish an official guide to the future development of the Wilshire Community. The purpose of the Community Plan is to promote an arrangement of land use, circulation, and services, which will encourage and contribute to the economic, social and physical health, safety, welfare, and convenience of the Community within the larger framework of the City.

The Proposed Project would provide an eight-story mixed-use residential and commercial development, which would conform to the objectives and policies identified in the Community Plan.

A detailed analysis of the consistency of the Proposed Project with the applicable objectives of the Wilshire Community Plan is presented in Table 5, below.

**Table 5  
Project Consistency Analysis with Applicable Goals, Objectives,  
and Policies of the Wilshire Community Plan**

Goal / Objective / Policy	Project Consistency Analysis
<b>Residential</b>	
<b>Goal 1:</b> Provide a safe, secure, and high quality residential environment for all economic, age, and ethnic segments of the Wilshire Community.	<b>No Conflict.</b> The Proposed Project would be consistent with the applicable design policies within the Wilshire Community Plan Area. Additionally, the Proposed Project would provide adequate open space, vehicle parking, and bicycle parking. The Proposed Project would incorporate safety features such as nighttime security lighting, a closed-circuit security camera system, and well-lit secure parking facilities. As such, the Proposed Project would support this goal by providing a safe, secure, and high-quality residential development in the Wilshire community. Additionally, the residential units would be available at market and affordable rates to all ethnic, social, and economic groups without discrimination. As such, the Proposed Project would not conflict with this goal.
<b>Objective 1-1:</b> Provide for the preservation of existing quality housing, and for the development of new housing to meet the diverse economic and physical needs of the existing residents and expected new residents in the Wilshire Community Plan Area to the year 2010.	<b>No Conflict.</b> The Project Site is currently vacant, and no residential dwelling units currently exist on the Project Site. As such, the Proposed Project would not remove any existing housing, in accordance this objective. Further, the Proposed Project would provide a range of unit types to meet the needs of families and individuals with various income levels. The Proposed Project would also comply with ADA regulations. As such, the Proposed Project would not conflict with this objective.
<b>Policy: 1-1.1:</b> Protect existing stable single family and low density residential neighborhoods from encroachment by higher density residential uses and other uses that are incompatible as to scale and character, or would otherwise diminish quality of life.	<b>No Conflict.</b> The Project Site is located in a commercial area along W. 3 <sup>rd</sup> Street that is surrounded with a variety of housing types and densities. High-density multi-family residential neighborhoods are located to the north, northwest, and northeast of the Project Site. The Project Site would not replace any existing residential uses; and thus, the Proposed Project would not encroach on existing residential uses. The existing residential uses in the area include medium to high density multi-family. The Proposed Project would develop residential uses that are consistent in scale and character to the existing multi-family residential uses in the vicinity and the ground-level commercial retail that front W. 3 <sup>rd</sup> Street and would generally improve the quality of the Project Site compared to existing conditions. The proposed design of the Proposed Project is compatible with the character and scale of existing land uses in the vicinity. As such, the Proposed Project would not conflict with this policy.
<b>Policy 1-1.4:</b> Provide for housing along mixed-use boulevards where appropriate.	<b>No Conflict.</b> West 3 <sup>rd</sup> Street is characterized by a mix of commercial, office, and residential land uses. The Proposed Project would not conflict with this policy as it proposes a mixed-use development with multi-family dwelling units on a development site that fronts W. 3 <sup>rd</sup> Street and Flores Street.

	Providing housing along a mixed-use boulevard would reduce VMT as residents would be within walking distance to retail and employment centers and would have increased access to transit. As such, the Proposed Project would not conflict with this policy.
<b>Objective 1-2:</b> Reduce vehicular trips and congestion by developing new housing in close proximity to regional and community commercial centers, subway stations and existing bus route stops.	<b>No Conflict.</b> The Proposed Project is located within a TPA, as defined by SB 743. The Project Site is served by the Metro local bus lines 14, 16, 105, 217, 218, 316, and 617, LADOT DASH Fairfax line, and the West Hollywood Citylines Local East and Local West. Additionally, community commercial centers and regional retail destinations are located near the Project Site along W. 3 <sup>rd</sup> Street. The Proposed Project's location near commercial centers and mass transit would contribute to a reduction in vehicle trips generated by the Proposed Project. The Project Site is currently vacant with zoning and land use designations that permit a mixed-use commercial and residential development. The Proposed Project would thus develop new housing on a commercial center site served by existing transit routes. As such, the Proposed Project would not conflict with this objective.
<b>Policy 1-2.1:</b> Encourage higher density residential uses near major public transportation centers.	<b>No Conflict.</b> The Proposed Project would develop a mixed-use building with multi-family residential units within a TPA as defined by SB 743. Major transit stops that serve the Project Site include the Metro local bus lines 16 and 316, located on W. 3 <sup>rd</sup> Street; Metro local bus line 14, located on Beverly Boulevard; and Metro local bus line 105, located on San Vicente Boulevard. As such, the Proposed Project would not conflict with this policy.
<b>Policy 1-3.2:</b> Support historic preservation goals in neighborhoods of architectural merit and/or historic significance.	<b>No Conflict.</b> As discussed further in Section 4 of this Categorical Exemption, under Historical Resources, the Proposed Project would not result in a substantial adverse change to the significance of a historic resource. Further, the Proposed Project is not located near or within a Historic Preservation Overlay Zone or have any historic resources on the Project Site. As such, the Proposed Project would not conflict with this policy.
<b>Policy 1-3.3:</b> Promote the preservation and rehabilitation of individual residential buildings of historic significance.	<b>No Conflict.</b> The Project Site is currently vacant. No residential buildings currently exist on-site, which may be of historic significance. As such, the Proposed Project would not conflict with this policy.
<b>Policy 1-3.4:</b> Monitor the impact of new development on residential streets. Locate access to major development projects so as not to encourage spillover traffic on local residential streets.	<b>No Conflict.</b> The Project Site is located at the northwest intersection of W. 3 <sup>rd</sup> Street and Flores Street. Third Street is designated as Avenue II roadway in the City's Mobility Plan; and Flores Street is designated as a Local Street. The Proposed Project would provide one full-access driveway from the alleyway along the northern property line. Primary access to the Project Site would be provided from the alleyway to reduce any spillover traffic along Flores Street, which contains high-density residential uses. As such, the Proposed Project would not encourage spillover traffic on local residential streets. Also, the Proposed Project's location on W. 3 <sup>rd</sup> Street and its proximity to mass transit would facilitate transit use. Therefore, the Proposed Project would not conflict with this policy.
<b>Policy 1-4.2:</b> Ensure that new housing	<b>No Conflict.</b> The Project Site is currently vacant. No

<p>opportunities minimize displacement of residents.</p>	<p>residences currently exist on site, and no residents would be displaced due to the Proposed Project. As such, the Proposed Project would not conflict with this policy.</p>
<p><b>Policy 1-4.3:</b> Encourage multiple family residential and mixed use development in commercial zones.</p>	<p><b>No Conflict.</b> The Project Site and the surrounding properties along W. 3<sup>rd</sup> Street are in a C2 zone. The Proposed Project would develop a mixed-use development with multi-family residential units within a commercial zone. This residential mixed-use development would provide commercial uses that serve the local community and housing options for local workers, both of which would facilitate reductions to VMT. As such, the Proposed Project would not conflict with this policy.</p>
<p><b>Commercial</b></p>	
<p><b>Goal 2:</b> Encourage strong and competitive commercial sectors which promote economic vitality and serve the needs of the Wilshire Community through well-designed, safe and accessible areas, while preserving historic and cultural character.</p>	<p><b>No Conflict.</b> The Proposed Project would provide new commercial/retail space fronting the commercial corridor of W. 3<sup>rd</sup> Street. The Proposed Project would be designed to comply with the LAMC and to promote a pedestrian-oriented environment. Additionally, as discussed in Section 4 of this Categorical Exemption, under Historical Resources, the Proposed Project would have no direct impacts on historical resources, since no historical resources are identified on the Project Site. As such, the Proposed Project would not conflict with this goal.</p>
<p><b>Objective 2-1:</b> Preserve and strengthen viable commercial development and provide additional opportunities for new commercial development and services within existing commercial areas.</p>	<p><b>No Conflict.</b> The Project Site is zoned C2-1VL-O. The Proposed Project includes a mixed-use residential and commercial development, with nearly 12,000 square feet of new commercial floor area. The Proposed Project would provide new opportunities for new businesses or the expansion or relocation of existing businesses; thus, increasing business opportunities in the area. The Proposed Project would provide new businesses in the mixed-use neighborhood. The Proposed Project would foster new business and employment opportunities and potential customers, which would support this objective. Thus, the Proposed Project would not conflict with this objective.</p>
<p><b>Policy 2-1.1:</b> New commercial uses should be located in existing established commercial areas or shopping centers.</p>	<p><b>No Conflict.</b> The Proposed Project would include neighborhood-serving commercial space on an existing site zoned as C2-1VL-O. W. 3<sup>rd</sup> Street is largely developed with commercial uses. The Proposed Project would provide ground-floor commercial spaces in a commercial zone and within a commercial corridor. As such, the proposed commercial uses would be consistent with existing surrounding retail properties. Therefore, the Proposed Project would not conflict with this policy.</p>
<p><b>Policy 2-1.3:</b> Enhance the viability of existing neighborhood stores and businesses which support the needs of local residents and are compatible with the neighborhood.</p>	<p><b>No Conflict.</b> The Proposed Project includes commercial/retail space on the ground level, fronting W. 3<sup>rd</sup> Street. The Proposed Project would provide new opportunities for new businesses or the expansion or relocation of existing businesses; thus, increasing business opportunities in the surrounding area. The Proposed Project would also support the needs of local residents by providing new retail businesses. The Proposed Project would provide new housing, which would provide new foot traffic to support existing and new businesses in this high-density mixed-use neighborhood. This mixed-use development would provide commercial uses that serve the local community and</p>

	housing options in an infill location, both of which would result in reductions to VMT. Thus, the Proposed Project would not conflict with this policy.
<b>Objective 2-2:</b> Promote distinctive commercial districts and pedestrian-oriented areas.	<b>No Conflict.</b> The Proposed Project involves the construction of an eight-story mixed-use building, which includes multi-family residential units and commercial/retail space fronting W. 3 <sup>rd</sup> Street. The Project Site is in walking distance to many services, employment opportunities, and retail spaces. Additionally, the Project Site is located in a transit-oriented area and is in close proximity to numerous bus routes and future rail routes along W. 3 <sup>rd</sup> Street, Beverly Boulevard, La Cienega Boulevard, and San Vicente Boulevard. Thus, the Proposed Project would not conflict with this policy.
<b>Policy 2-2.1:</b> Encourage pedestrian-oriented design in designated areas and in new development.	<b>No Conflict.</b> The Proposed Project includes the development of an eight-story mixed-use building with multi-family residential units and retail space. The Project Site is in walking distance to many services, employment opportunities, retail spaces, and bus routes. The Project Site's location would promote other modes of transportation, such as walking, biking, and public transportation. The commercial uses would front the public rights-of-way and not provide vehicle access along 3 <sup>rd</sup> Street, encouraging additional pedestrian activity along W. 3 <sup>rd</sup> Street and Flores Street. Therefore, the Proposed Project would not conflict with this policy.
<b>Policy 2-2.2:</b> Encourage large mixed use projects to incorporate facilities beneficial to the community such as libraries, child care facilities, community meeting rooms, senior centers, police sub-stations, and/or other appropriate human service facilities as part of the project.	<b>No Conflict.</b> The Proposed Project includes the development of an eight-story mixed-use building with multi-family residential units and retail space. The Proposed Project would be open to all businesses that serve the surrounding neighborhood. Thus, the Proposed Project would not conflict with this policy.
<b>Objective 2-3:</b> Enhance the visual appearance and appeal of commercial districts.	<b>No Conflict.</b> The Proposed Project would redevelop an underutilized site that is currently vacant. The Proposed Project would be designed and landscaped with guidance of City Planning Staff to enhance the surrounding commercial land uses along W. 3 <sup>rd</sup> Street. Additionally, the Proposed Project would be designed in accordance with the Urban Design guidelines in the Wilshire Community Plan to enhance the visual appearance and appeal of W. 3 <sup>rd</sup> Street. The Proposed Project would be compatible with the scale of adjacent commercial districts, which includes buildings varying from one- to three-stories above grade. The Proposed Project would also include landscaping at the ground-level to physically enhance the Project Site and surrounding areas, especially the commercial land uses, across the Project Site fronting W. 3 <sup>rd</sup> Street. Thus, the Proposed Project would not conflict with this objective.
<b>Policy 2-3.1:</b> Improve streetscape identity and character through appropriate controls of signs, landscaping, and streetscape improvements; and require that new development be compatible with the scale of adjacent neighborhoods.	<b>No Conflict.</b> The Proposed Project would be designed in accordance with the Community Plan's Urban Design guidelines to improve streetscape identity and character and be compatible with the scale of adjacent commercial neighborhoods. The Proposed Project would include landscaping at the ground-level to physically enhance the Project Site and surrounding area. The Proposed Project would also eliminate the existing driveway along Flores

	Street to promote a more pedestrian friendly environment along this roadway. Thus, the Proposed Project would not conflict with this policy.
Source: City of Los Angeles, Department of City Planning, Wilshire Community Plan, September 2001; and Parker Environmental Consultants, 2023.	

The Proposed Project would thus be consistent with the applicable goals, objectives, and policies of the Wilshire Community Plan. As such, impacts related to the consistency with the applicable land use and planning policies in the Wilshire Community Plan would be less than significant.

As discussed above, the Proposed Project would not conflict with applicable zoning and development standards, including those set forth in the LAMC and the Wilshire Community Plan.

**b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.**

As shown in Figure 3, Aerial Photograph of the Project Site and Surrounding Land Uses, the Project Site is located in an urbanized area of the Wilshire Community Plan area and is entirely surrounded by urban land uses. The Project Site encompasses four parcels and is identified by the following County of Los Angeles Assessor Parcel Number (APN): 5511-016-016. The Project Site encompasses approximately 19,339 square feet of buildable lot area (0.44 acres). The Project Site is surrounded by a mix of commercial uses and multi-family residential buildings. Therefore, the Project Site is less than five acres and surrounded by urban uses.

**c) The Project Site has no value as habitat for endangered, rare or threatened species.**

The Project Site is located in a highly urbanized area within the City of Los Angeles. As shown in Figure 3, Aerial Photograph of the Project Site and Surrounding Land Uses, the Project Site and the surrounding area are fully developed with urban infrastructure and do not contain any significant areas of natural open space or areas of significant biological resource value. The Project Site is currently vacant. There is one white mulberry tree (*Morus alba*) located on the Project Site that would be removed. There are three street trees (Australian willow *Geijera parviflora*) located along the public right-of-way along 3<sup>rd</sup> Street that would remain during the construction of the Proposed Project. (see Attachment 6 to this Categorical Exemption). Based on a review of the U.S. Fish and Wildlife Service (USFWS) Threatened & Endangered Species Active Critical Habitat Report for the Project area, no candidate, sensitive, or special status species identified in local plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or the USFWS have been recorded or exist in the immediate Project area. Additionally, no critical habitat was identified in the USFWS's Information for Planning and Consultation (IPaC) database. The USFWS's IPaC database identified one threatened species (coastal California gnatcatcher) that occurs within the broader project locale, but indicated that the Project Site is located outside of the designated critical habitat for this species (see Attachment 5 to this Categorical Exemption).

While the removal of non-protected trees would not be considered a significant impact under CEQA, the removal of trees has the potential to impact nesting bird species if they are present at the time of tree removal. Nesting birds are protected under the Federal Migratory Bird Treaty Act (MBTA) (*Title 16, United States Code, Section 703 et seq., see also Title 50, Code of Federal Regulation, Part 20*) and Section 3503 of the California Department of Fish and Game Code. To ensure compliance with the MBTA, the City of Los Angeles Department of Building and Safety imposes standard regulatory compliance measures advising applicants to avoid tree removal activities during the breeding season. If avoidance is not feasible, the LADBS recommends weekly bird surveys be conducted to ensure that the trees proposed for removal are not occupied by nesting birds. Thus, with adherence to the Federal Migratory Bird Treaty Act, the Proposed Project would have a less than significant impact on sensitive biological species or habitat.

**d) Approval of the Proposed Project would not result in any significant effects relating to traffic, noise, air quality, or water quality.**

***Traffic/Transportation***

The following assessment is based on the Transportation Assessment for the 8339 W. 3<sup>rd</sup> Street Mixed-Use Project, prepared by KOA Corporation, dated July 12, 2023 (Attachment 2 to this Categorical Exemption).

Following the passage of Senate Bill 743 (SB 743), the State of California's Governor's Office of Planning and Research (OPR) was tasked with developing new guidelines for evaluating transportation impacts under CEQA. These guidelines are intended to promote the reduction of greenhouse gas emissions and develop multimodal and diverse transportation networks by shifting the transportation performance metric from automobile delay and level of service (LOS) to vehicle miles traveled (VMT). As a result, OPR determined that under the proposed update to the CEQA guidelines, VMT would be established as the primary metric for evaluating environmental and transportation impacts.

In response to the updates to the CEQA guidelines, the LADOT updated the City's Transportation Assessment Guidelines (TAG) in July 2020 and August 2022 to conform to the requirements of SB 743. The TAG replaced the Transportation Impact Study Guidelines and shifted the performance metric for evaluating transportation impacts under the CEQA from Level of Service (LOS) to Vehicle Miles Traveled (VMT) for studies completed within the City. The TAG establishes thresholds to identify development projects that would conflict with the updated CEQA guidelines.

As part of the TAG update, the LADOT identified three significance thresholds to determine if a development project would result in transportation impacts under the updated CEQA guidelines. The Proposed Project would have a significant impact should any of the following be true:

- 1. Conflicts with the City's plans, programs, ordinances, or policies*
- 2. Causes substantial VMT*
- 3. Substantially increases hazards due to a geometric design feature or incompatible use(s).*

## **1. Conflicting with Plans, Programs, Ordinances, or Policies**

In line with the City's efforts to achieve a transportation system that meets the needs of all roadway users, the City has adopted numerous transportation-related plans and policies that promote safety for motorists, pedestrians, bicyclists, and transit riders. For the goals of these policies to be fully realized, it is paramount that development projects align with these plans and policies. For this reason, the updated TAG establishes the following threshold to ensure that proposed development projects contribute to achieving an accessible and sustainable transportation network:

*Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?*

The TAG has also established three screening criteria for determining which development projects are required to assess compliance with the City's plans, programs, ordinances, and policies. If any of the criteria are met, a compliance assessment is required. The criteria are listed below:

1. The development project requires a discretionary action that requires the decision maker to find that the decision substantially conforms to the purpose, intent, and provisions of the General Plan.
2. The development project is known to directly conflict with a transportation plan, policy, or program adopted to support multi-modal transportation options or public safety.
3. The development project is proposing to, or is required to, make modifications to the public right-of-way (e.g., street dedications and/or improvements in the right-of-way, reconfigurations of the curb line, etc.).

Based on the above screening criteria, the Proposed Project would meet the following screening questions:

- The Proposed Project requires a discretionary action.
- The Proposed Project is proposing to make modifications to the public right-of-way.

Therefore, the Proposed Project's compliance with the City's plans and policies will need to be assessed and is discussed in further detail below.

The review of the applicable plans and policies included the Mobility Plan 2035, Plan for A Healthy Los Angeles, Wilshire Community Plan, AB 2097, Los Angeles Vision Zero Plan, Citywide Design Guidelines, LAMC, Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), and City Planning Department's Walkability Checklist. These are discussed in further detail below. Additionally, Appendix B of Attachment 2 to this Categorical Exemption, includes the LADOT Attachment D: Plan Consistency Worksheet (the "Plan Worksheet") that outlines general questions that assist in the determination of whether or not the Proposed Project conflicts with a plan, policy, or program.



Based on the following reviews, the Proposed Project would support and not preclude the implementation of the City's transportation-related goals and policies, as explained below. Therefore, the Proposed Project would not have a significant impact regarding compliance with the City's plans, programs, ordinances, or policies. The Proposed Project is also not expected to contribute to a cumulative impact related to implementation of the City's transportation-related goals and policies, as there are no related development projects in the direct Project vicinity that could affect local policy compliance.

### *Mobility Plan 2035*

The Proposed Project would embrace the objectives of the Mobility Plan 2035, which also includes the goals and policies of the City of Los Angeles General Plan and Bicycle Plan. The Mobility Plan designates 3rd Street, the roadway bordering the Project Site to the south, as an Avenue II. This designation entails a 56-foot wide roadway within an 86-foot wide right-of-way. The segment of 3rd Street adjacent to the Project Site presently has a 56-foot wide roadway within an 80-foot wide right-of-way. The Proposed Project would make the necessary dedication to achieve the roadway's ultimate half right-of-way. The Mobility Plan indicates that 3rd Street is identified as part of the City's Transit Enhanced Network (TEN) and a Pedestrian Enhanced District (PED). The Mobility Plan designates Flores Street, the roadway bordering the Project Site to the east, as a Local Street. This designation entails a 36-foot wide roadway within a 60-foot wide right-of-way. The segment of Flores Street adjacent to the Project Site currently has a 40-foot wide roadway within a 60-foot right-of-way. The Proposed Project is not required to make additional improvements to Flores Street. The Proposed Project would add short-term bicycle parking along both roadways, furthering the City's active transportation goals.

In compliance with LADOT's goals and policies, the Proposed Project driveway would be located along the alley bounding the site to the north. As mentioned in the Mobility Plan policy regarding the location of driveways along non-arterial roadways, the proposed driveway has been designed in order to provide for safe and efficient operation that considers all roadway users. Sufficient sight distance would also be provided in order to identify conflicting vehicles, bicycles, and pedestrians. Thus, since the driveway is proposed along an alley, the design and operation of this access point would likely provide safe operations for vehicles, pedestrians, and bicyclists, alike, while also minimizing potential conflicts with traffic along Kings Road and Flores Street.

In summary, the Proposed Project is consistent with the Mobility Plan 2035 for public right-of-way classification standards and dedications; policy alignment with Project-initiated changes; and network access.

### *Plan for a Healthy Los Angeles*

The Plan for a Healthy Los Angeles, as established in March 2015, is meant to prioritize health and social equity in the City's plans for future growth and development. The Plan is guided by principles of holistic health, the link between community design and health, and active transportation, among other principles. Chapter 2 of The Plan, A City Built for Health, promotes multi-modal corridors and accessible services as features of a safe and healthy city. The development of the Proposed Project would not preclude the Plan's goals of promoting active

transportation and a healthy city. As a residential mixed-use project with short-term and long-term bicycle parking, the Proposed Project would be conducive to this active mode of travel for residents, employees, and guests alike.

#### *Wilshire Community Plan*

The Wilshire Community Plan, as adopted in September 2001, summarizes key issues and opportunities in the area through the development of goals, objectives, policies, and programs associated with multiple land uses including residential and commercial projects that lie within its boundaries. Under the Land Use Plan Policies and Programs (Chapter 3), transportation section, several transportation goals and policies are noted for the area. By increasing residential density near a major transit stop which provides rapid bus service, the Project supports the objectives of encouraging the use of local and express bus service within the community plan area. Additionally, the Proposed Project would encourage and establish a system of safe and efficient bicycle and pedestrian facilities by installing bicycle racks and maintaining spacious sidewalks adjacent to the Project Site.

The Wilshire Community Plan also encourages the establishment of a Transportation Demand Management (TDM) program to promote the more effective use of existing roadway facilities by reducing single-occupancy automobile travel and promoting alternative modes of transportation. The implementation of TDM strategies would help promote increased active non-motorized mode of travel by Project residents, as well as provide carpooling and ridesharing opportunities for Project residents, employees, and patrons. As discussed, the Proposed Project would conform to the requirements of the City's TDM Ordinance and would implement bicycle parking features and parking reductions that qualify as TDM strategies and would assist in meeting the TDM Community Plan objective. The Proposed Project would also fulfill this objective by providing residential uses close to transit facilities, which would reduce vehicular trips and provide greater accessibility to local and regional destinations. Thus, the Proposed Project would help realize several of the transportation programs noted within the area Community Plan.

#### *Assembly Bill 2097*

AB 2097 is a California law that prohibits public agencies or cities from imposing a minimum automobile parking requirement on most development projects within a one-half mile radius of a major transit stop. Projects located with one-half mile of a major transit stop are generally eligible for the automobile parking reduction provided by AB 2097. This includes residential, commercial, and industrial projects. As a residential/commercial mixed-use development project within one-half mile of a major transit stop (La Cienega Boulevard & 3rd Street), the Proposed Project is eligible for this parking reduction. The Proposed Project would provide 38 commercial and 0 residential automobile parking spaces, which falls below the standard LAMC parking requirements. Reduced parking from the amount required by direct application of the LAMC parking rates, without consideration of parking reduction mechanisms, is considered a benefit to reducing VMT. Therefore, the Proposed Project's parking reductions, if approved, are accounted for in the VMT analysis.

## *Vision Zero*

Vision Zero was launched by the Mayor of Los Angeles in August 2015 with the goal of eliminating all traffic fatalities citywide by 2025. Vision Zero specifically seeks to implement traffic safety treatments at intersections and along roadway segments to improve safety for pedestrians, bicyclists, and other vulnerable road users. The City of Los Angeles has developed a High Injury Network (HIN) that identifies roadways having a high number of traffic collisions causing serious injury and death. Development projects proposed on a roadway identified as part of the City's HIN should be designed to enhance safety for non-motorized users. 3rd Street directly south of the Project Site is classified as a HIN roadway. The Proposed Project would provide ingress and egress for vehicles through an alley located north of the Project Site and away from 3rd Street, thus reducing vehicle-pedestrian conflicts along 3rd Street and improving visibility for pedestrians along the roadway. By maintaining the existing sidewalks and infrastructure, the Proposed Project would not negatively affect the safety of pedestrians, bicycles, and other vulnerable roadway users along 3rd Street.

## *Citywide Design Guidelines*

The Los Angeles Department of City Planning established Citywide Design Guidelines meant to promote maintaining neighborhood character, quality design, and creative development solutions. Guidelines 1-3 provide best practices in the area of Pedestrian-First Design that are as follows:

- Guideline 1 is to promote a safe, comfortable, and accessible pedestrian experience for all.
- Guideline 2 is to carefully incorporate vehicular access such that it does not degrade the pedestrian experience.
- Guideline 3 is to design projects to actively engage with streets and public space and maintain human scale.

The Proposed Project's pedestrian facilities provide sufficient pedestrian access at the first-floor residential and commercial entrances and along the 3rd Street and Flores Street sidewalks. In addition, the Proposed Project is proposing to provide pedestrian plazas connecting to the existing sidewalk which would activate the block as a pedestrian-friendly area. The proposed vehicular access driveway is located along the alley behind the Project Site, which would limit the number of conflicting vehicles that would cross the pedestrian path of travel, reducing the potential for dangerous pedestrian-vehicle conflicts. The Proposed Project is designed to present a street frontage along 3rd Street that has plenty of retail store fronts, pedestrian engagement, and open spaces areas. Therefore, the Proposed Project is compliant with the Citywide Design Guidelines.

## *Los Angeles Municipal Code*

The LAMC bicycle parking ordinance § 12.21 A.16 requires the provision of short-term bicycle parking spaces at a rate of 1 space per 10 units for the first 25 units of a residential development; 1 space per 15 units for units 26 through 100; and 1 space per 20 units for units 101 through 200. The LAMC requires the provision of residential long-term bicycle parking spaces at a rate of 1

space per unit for the first 25 units of a residential development; 1 space per 1.5 units for units 26 through 100; and 1 space per 2 units for units 101 through 200. For the commercial retail space, the LAMC requires the provision of both short-term and long-term bicycle parking at a rate of 1 space per 2,000 square feet of floor area, with a minimum of two spaces. Based on these rates, the Proposed Project would meet the LAMC bicycle parking requirements by providing at least 12 short-term (6 residential, 6 commercial) and 66 long-term bicycle stalls (60 residential, 6 commercial). The Proposed Project would provide a minimum of 12 short-term and 66 long-term bicycle spaces. The short-term bicycle parking spaces are to be located along the 3rd Street and Flores Street sidewalks fronting the Proposed Project. The long-term bicycle parking spaces are to be on Level 2 of the Project building, near the automobile parking. The Proposed Project would, therefore, provide convenient and adequate bicycle parking facilities.

The current TDM requirements (LAMC § 12.26J) outlines TDM measures that a development must implement and comply with which includes displaying mobility information, designating parking for carpool/vanpools, and providing bicycle parking. The Proposed Project would be in compliance with the Code. This includes reducing the parking supply, providing the required bicycle parking spaces, and incorporating affordable housing. It should be noted that the Proposed Project would feature reduced parking supply and bicycle parking as TDM strategies for the VMT analysis, as discussed in Section 4.2.

In reviewing the abovementioned LAMC requirements, the Proposed Project does not conflict with the bicycle, vehicle, or TDM policies.

#### *SCAG RTP/SCS*

The SCAG RTP/SCS balances future mobility and housing needs with economic, environmental, and public health goals in a long-term plan that are laid out for the period from 2020-2045. The Plan Worksheet Section II.E (contained within Attachment 2 of this Categorical Exemption) addresses whether or not a development project is consistent with regional plans such as the SCAG RTP/SCS. The Proposed Project is consistent with the SCAG RTP/SCS because the Proposed Project would not result in a significant VMT impact as detailed further below.

#### *Walkability Checklist*

The Los Angeles Department of City Planning's Walkability Checklist provides design strategies and guidelines for walkable streets. These documents promotes pedestrian-friendly features in the public right-of-way and on private property. The Department's Residential Citywide Design Guidelines for Multi-Family Residential & Commercial Mixed-Use Projects provide a blueprint for sustainable and aesthetically pleasing residential development. These documents promote the provision of pedestrian-friendly, street-fronting entrances to residential developments at surface grade. The Proposed Project frontage on 3rd Street and Flores Street would provide multiple entrances to the Proposed Project's residential and commercial land uses for easy pedestrian-friendly access.

## **2. Causing Substantial Vehicle Miles Traveled**

As outlined in the Mobility Plan 2035, the City has a goal of reaching a 20 percent reduction in VMT by 2035. In line with these goals, the City has updated the TAG to ensure compliance with Section 15064.3, subdivision (b)(1) of the CEQA Guidelines, which asks if a development project would result in a substantial increase in VMT. The TAG sets the following criterion for determining significant transportation impacts based on VMT:

*For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)(1)?*

To assist in determining which development projects would conflict with CEQA Guidelines section 15064.3, subdivision (b)(1), the TAG establishes two screening criteria to evaluate whether further analysis is required of a land use project's VMT impact. Both of the following criteria must be met in order to require further analysis of a land use project's VMT contribution:

1. The land use project would generate a net increase of 250 or more daily vehicle trips.
2. The land use project would generate a net increase in daily VMT.

In addition, the TAG provides specific instructions for evaluating the VMT contributions of retail and restaurant uses. Should a land use project contain retail or restaurant components that are small-scale or local-serving in nature, the retail/restaurant portion of the land use project can be assumed not to result in a significant VMT impact. The retail/restaurant component of a land use project should be considered small-scale or local-serving if the total retail and restaurant square footage does not exceed 50,000 square feet. For a mixed-use development, if the retail/restaurant component does not exceed 50,000 square feet in floor area, that component can be considered to have a less-than-significant VMT impact; however, the remaining portions of the land use project are subject to further VMT analysis per the above screening criteria.

After the initial screening, the TAG provides guidance for further analysis of the VMT contribution of a land use project. Under the updated TAG, two forms of VMT are analyzed: (1) household VMT per capita and (2) work VMT per employee. The household VMT per capita is the home-based VMT produced by the residential component of a land use project divided by the number of residents within the development. The work VMT per employee is the home-based work VMT attracted by the non-residential uses of a land use project divided by the number of employees within the development. As outlined in the TAG, in order for a proposed land use project to have a less-than-significant VMT impact, two criteria must be met: (1) the land use project's household VMT per capita must be at least 15 percent below the average household VMT per capita, and (2) the land use project's work VMT per employee must be at least 15 percent below the average work VMT per employee. Table 6 shows the thresholds corresponding to 15 percent below the average household VMT per capita and average work VMT per employee. These thresholds have been determined individually for each of the seven Area Planning Commission (APC) areas comprising the City. The significance thresholds to be applied are determined based on the land use project's APC area, in this case the Central APC area.

**Table 6  
LADOT Thresholds for Significant VMT Impacts**

<b>Area Planning Commission</b>	<b>Daily Household VMT per Capita</b>	<b>Daily Work VMT per Employee</b>
Central	6.0	7.6
East LA	7.2	12.7
Harbor	9.2	12.3
North Valley	9.2	15.0
South LA	6.0	11.6
South Valley	9.4	11.6
West LA	7.4	11.1

Along with the updated TAG, LADOT developed the VMT Calculator, which calculates the daily vehicle trips, daily VMT, daily household VMT per capita, and daily work VMT per employee for land use projects. The VMT Calculator utilizes average daily trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition, 2012) and empirical trip generation data to determine the base daily trips associated with a land use project. The number of daily trips is further refined using data from the Environmental Protection Agency’s (EPA’s) Mixed-Use (MXD) Model and the City’s Travel Demand Forecasting (TDF) Model.

The VMT Calculator also determines population and employment estimates for a land use project based on rates developed from U.S. Census data for the City of Los Angeles and employment data from a variety of sources, including the Los Angeles Unified School District and the San Diego Association of Governments (SANDAG). The VMT Calculator then uses trip length information from the TDF Model, in combination with the daily trips and population/employment estimates, to calculate the land use project’s daily VMT, household VMT per capita, and work VMT per employee. The VMT Calculator also provides a menu of TDM strategies that can be implemented for a land use project, either as project features or mitigation measures, to reduce a project’s daily vehicle trips and VMT. Further detail on the VMT Calculator can be found in the City of Los Angeles VMT Calculator Documentation (May 2020).

To determine whether the Proposed Project requires further VMT analysis, the Proposed Project’s land use data were input into the VMT Calculator. As shown in Appendix C of the Transportation Assessment (Attachment 2 of this Categorical Exemption), the Proposed Project’s components include the Housing (Multi-Family), Housing (Affordable Housing – Family), Retail (General Retail), Retail (Fast-Food Restaurant), and the Retail (Quality Restaurant) land uses. Although the Project Site contained an active institutional building as recently as November 2022, no existing land use credit has been applied as a conservative measure. As shown in Appendix C of the Transportation Assessment, using the VMT Calculator, Version 1.4 v143, the Proposed Project would generate 995 net daily vehicle trips and 6,916 net daily VMT per the screening analysis. As the Proposed Project would generate more than 250 net daily vehicle trips and would result in a net increase in daily VMT, the Proposed Project would meet both screening criteria and require further VMT analysis. It should be noted that, for the purposes of VMT screening per the TAG, Project features that qualify as TDM measures are excluded from the calculations.

The VMT Calculator was then utilized to determine household VMT per capita and work VMT per employee. The Proposed Project would incorporate some of the TDM strategies listed in the VMT Calculator (allowable per the LAMC) as part of Project development. Therefore, certain project design features were considered in the VMT calculations for the Proposed Project. The TDM measures included as Project features are:

1. Reduce Parking Supply: The LAMC, without consideration of parking reduction mechanisms, would require a total of 223 automobile parking spaces (§ 12.21 A.4). The Proposed Project proposes to provide a total of approximately 38 on-site automobile parking spaces, which represents a reduction of 183 automobile parking spaces from the amount required by direct application of the LAMC.
2. Include Bike Parking Per LAMC: The Proposed Project bicycle parking provisions meet the City bicycle requirements per the LAMC (§ 12.21 A.16).

With the abovementioned TDM strategies implemented as project design features, the Proposed Project is anticipated to generate 865 gross daily vehicle trips and 6,014 gross daily VMT. As shown in Appendix C of the Transportation Assessment, the VMT Calculator determined that the Proposed Project would generate a household VMT per capita of 4.1. As the commercial component of the Proposed Project is less than 50,000 square feet, the retail uses are considered to be local serving and would not result in a significant VMT impact. Thus, the work VMT per employee metrics were not calculated for the commercial uses. Since the Project Site is located within the Central APC area, the appropriate threshold of significance with which to compare the Proposed Project's household VMT estimate is 6.0 daily household VMT per capita, as shown previously in Table 6. Therefore, the Proposed Project is not expected to have a significant VMT impact based on its household VMT per capita. In addition, per guidance from the TAG, as a project with less-than-significant household VMT per capita and work VMT per employee impacts the Proposed Project can be assumed not to have a cumulative impact related to VMT.

### ***3. Substantially Increasing Hazards Due to Geometric Design Feature or Incompatible Use***

In line with Vision Zero policies, the TAG seeks to identify any potential impacts that could arise due to roadway modifications proposed as part of a development project. These impacts include potential conflicts between motorists, bicyclists, and pedestrians, as well as increases in operational delays and vehicle queuing at development project driveways. Potential impacts would be determined based on the location of proposed driveways and the ability for motorists entering and exiting the project site to identify conflicting vehicular, pedestrian, and bicycle traffic. Therefore, the TAG has established the following threshold to determine if a development project would result in a significant impact based on the creation of roadway hazards:

*Would the project substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?*

The TAG also establishes two screening criteria to assist in determining which development projects would potentially result in impacts due to geometric design hazards or incompatible uses.

If either of the following conditions is present for a proposed development project, then further analysis of the potential hazards is required:

1. The land use project proposes new driveways, or introduces new vehicular access to the property from the public right-of-way.
2. The land use project proposes, or is required to, make modifications to the public right-of-way (e.g. street dedications, reconfigurations of curb line, etc.).

The Proposed Project would install one new driveway on the alley behind the Project Site and eliminate an existing driveway along Flores Street. The new driveway would intersect the alley at a right angle and would provide adequate sight distance in order to identify conflicting vehicular, pedestrian, and bicycle traffic. The only modification to Flores Street would be the elimination of the existing driveway. As the Proposed Project would replace a driveway on a Local Street with a driveway on a lower-classification alley, this would reduce the potential for vehicle-pedestrian and vehicle-bicycle conflicts. No modifications to the public right-of-way are proposed for 3rd Street.

Based on this assessment, the Proposed Project is not anticipated to have a significant impact related to geometric design feature of incompatible use hazards. The Proposed Project is not expected to contribute to a significant cumulative hazard impact since the access to adjacent properties would not be altered by the construction of the Proposed Project or other developments.

As discussed in the preceding paragraphs, the Proposed Project would not result in any transportation impact, and impacts would be less than significant.

## **Noise**

### *Construction Noise Impacts*

For purposes of determining the Proposed Project's construction noise impacts, a significant impact would occur if the Proposed Project is not in compliance with LAMC Chapter XI, Article 2, Section 112.04, 112.05, and 41.40. LAMC Section 112.05 provides that between the hours of 7:00 A.M. and 10:00 P.M., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet therefrom. Under this standard, the Applicant must at minimum demonstrate compliance with LAMC Section 112.05. Further, in compliance with LAMC Section 112.04, this analysis addresses whether construction activities would exceed existing ambient exterior noise levels by 5 dBA (hourly  $L_{eq}$ ) or more in residential areas. If necessary, features to reduce noise to below-threshold levels (75 dBA) and below a 5-dBA ambient noise increase can be incorporated into the project design to ensure regulatory compliance.

For purposes of evaluating the Proposed Project's construction and operational noise impacts, the following regulatory compliance measures and construction project design features would be incorporated into the Proposed Project's construction activities. These features and control measures are consistent with the noise management procedures and regulations of the LAMC and Noise Element of the General Plan.



## Los Angeles Municipal Code

The LAMC contains a number of regulations that would apply to the Proposed Project's temporary construction activities and long-term operations. Provided below are the relevant sections from the LAMC that pertain to construction noise. The Applicant would be required to adhere to these code restrictions and any other conditions of approval that may be imposed on the Project to the satisfaction of the Department of City Planning.

### *Sec. 41.40. Noise Due to Construction, Excavation Work—When Prohibited*

- (a) No person shall, between the hours of 9:00 P.M. and 7:00 A.M. of the following day, perform any construction or repair work of any kind upon, or any excavating for, any building or structure, where any of the foregoing entails the use of any power drive drill, riveting machine, excavator or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence. In addition, the operation, repair or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and willfully violates the foregoing provision shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this Code.

### *Sec. 112.01. Radios, Televisions Sets, and Similar Devices*

- (a) It shall be unlawful for any person within any zone of the City to use or operate any radio, musical instrument, phonograph, television receiver, or other machine or device for the producing, reproducing or amplification of the human voice, music, or any other sound, in such a manner, as to disturb the peace, quiet, and comfort of neighbor occupants or any reasonable person residing or working in the area ... to exceed the ambient noise level by more than five decibels.

### *Sec. 112.02. Air Conditioning, Refrigeration, Heating, Plumbing, Filtering Equipment*

- (a) It shall be unlawful for any person, within any zone of the city, to operate any air conditioning, refrigeration or heating equipment for any residence or other structure or to operate any pumping, filtering or heating equipment for any pool or reservoir in such manner as to create any noise which would cause the noise level on the premises of any other occupied property ... to exceed the ambient noise level by more than five decibels.

### *Sec. 112.04. Powered Equipment Intended for Repetitive Use in Residential Areas and Other Machinery, Equipment, and Devices.*

- (a) Between the hours of 10:00 p.m. and 7:00 a.m. of the following day, no person shall operate any lawn mower, backpack blower, lawn edger, riding tractor, or any other machinery, equipment, or other mechanical or electrical device, or any hand tool which

creates a loud, raucous or impulsive sound, within any residential zone or within 500 feet of a residence.

- (b) Except as to the equipment and operations specifically mentioned and related elsewhere in this Chapter or for emergency work as that term is defined in Section 111.01(d), and except as to aircraft, tow tractors, aircraft auxiliary power units, trains and motor vehicles in their respective operations governed by State or federal regulations, no person shall operate or cause to be operated any machinery, equipment, tools, or other mechanical or electrical device, or engage in any other activity in such manner as to create any noise which would cause the noise level on the premises of any other occupied property, or, if a condominium, apartment house, duplex, or attached business, within any adjoining unit, to exceed the ambient noise level by more than five (5) decibels.

*Sec. 112.05. Maximum Noise Level of Powered Equipment or Powered Hand Tools*

Between the hours of 7:00 A.M. and 10:00 P.M., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet therefrom:

- (a) 75 dBA for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;
- (b) 75 dBA for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;
- (c) 65 dBA for powered equipment intended for repetitive use in residential areas, including lawn mowers, backpack blowers, small lawn and garden tools and riding tractors.

Said noise limitations shall not apply where compliance therewith is technically infeasible. The burden of proving that compliance is technically infeasible shall be upon the person or persons charged with a violation of this section. Technical infeasibility shall mean that said noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers and/or other noise reduction device or techniques during the operation of the equipment.

*Sec. 113.01. Rubbish and Garbage Collection and Disposal*

It shall be unlawful for any person engaged in the business of collecting or disposing of rubbish or garbage to operate any refuse disposal truck, parking lot sweeper, or vacuum truck, or to collect, load, pick up, transfer, unload, dump, discard, sweep, vacuum, or

dispose of any rubbish or garbage, as such terms are defined in Section 66.00 of the LAMC, within 200 feet of any residential building between the hours of 9:00 p.m. and 6:00 a.m. of the following day, unless a permit therefore has been duly obtained beforehand from the Board of Police Commissioners.

*Sec. 114.02. Motor Driven Vehicles*

(a) It shall be unlawful for any person to unreasonably operate any motor driven vehicle upon any property within the City or to unreasonably accelerate the engine of any vehicle, or unreasonably sound, blow or operate the horn or other warning device of such vehicle in such manner:

1. As to disturb the peace, quiet and comfort of any neighborhood or of any reasonable person residing in such area
2. That such activity is audible to the human ear at a distance in excess of 150 feet from the property line of the noise source;
3. As to create any noise which would cause the noise level on the premises of any occupied residential property, or if a condominium, apartment house or duplex, within any adjoining unit, to exceed the ambient noise level by more than five (5) decibels.

*Sec. 114.03. Vehicles – Loading and Unloading*

(a) It shall be unlawful for any person, between the hours of 10:00 p.m. and 7:00 a.m. of the following day, to load or unload any vehicle, or operate any dollies, carts, forklifts, or other wheeled equipment, which causes any impulsive sound, raucous or unnecessary noise within 200 feet of any residential building.

*Sec. 114.06. Vehicle Theft Alarm Systems*

It shall be unlawful for any person to install, operate or use any vehicle theft alarm system that emits or causes the emission of an audible sound, which is not, or does not become, automatically and completely silenced within five minutes. The time period shall be calculated based upon the emission of the first audible sound and shall end five minutes thereafter notwithstanding any variation or stoppage in the emissions of audible sound. Violation of this section shall constitute an infraction.

*Sec. 116.01. Loud, Unnecessary And Unusual Noise*

Notwithstanding any other provisions of this chapter and in addition thereto, it shall be unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary, and unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area. The standard which may be considered in determining whether a violation of the provisions of this section exists may include, but not

be limited to, the following: (a) The level of noise; (b) Whether the nature of the noise is usual or unusual; (c) Whether the origin of the noise is natural or unnatural; (d) The level and intensity of the background noise, if any; (e) The proximity of the noise to residential sleeping facilities; (f) The nature and zoning of the area within which the noise emanates; (g) The density of the inhabitation of the area within which the noise emanates; (h) The time of the day and night the noise occurs; (i) The duration of the noise; (j) Whether the noise is recurrent, intermittent, or constant; and (k) Whether the noise is produced by a commercial or noncommercial activity.

*Ordinance No. 178,048*

The City of Los Angeles Building Regulations Ordinance No. 178,048 requires a construction site notice to be posted on site that includes the job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the Site, and City telephone numbers where violations can be reported. This notice is required to be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public.

*Project Design Features*

In furtherance of complying with the provisions set forth in LAMC Sections 112.04 and 112.05, above, the Applicant will incorporate the following features into the construction work plans, which shall be conditions of approval of the Proposed Project:

- Construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.
- The project contractor shall use power construction equipment with noise shielding and muffling devices.
- The project contractor will erect a temporary noise-attenuating sound barrier along the northern property line of the Project Site. The sound wall will be a minimum of 8 feet in height to block the line-of-sight of construction equipment and off-site receptors at the ground level. The sound barrier shall include sound absorbing material capable of achieving a minimum of 15-dBA reduction in sound level.
- During any jackhammering and structural framing, the project contractor shall utilize temporary portable acoustic barriers, partitions, or acoustic blankets to effectively block the line-of-sight between noise producing equipment and the adjacent residential land uses for purposes of ensuring noise levels at the adjacent residential land uses does not exceed 75 dBA  $L_{eq}$  over the ambient noise levels.

*Existing Ambient Noise Conditions*

The Project Site is located on the northwest corner of W. 3<sup>rd</sup> Street and Flores Street and is currently vacant. Commercial and residential land uses surround the Project Site. Commercial

activity from the surrounding land uses currently contributes noise to the baseline conditions. Traffic and transit operations around the Project Site also contribute to the baseline noise conditions. Collectively, these noise sources contribute to ambient noise levels in the baseline condition.

Exterior daytime noise levels were monitored at three locations in the vicinity of the Project Site to measure ambient noise conditions affecting the sensitive receptors in the vicinity. The approximate locations of where each noise measurement was taken are depicted in Figure 1, Noise Monitoring and Sensitive Receptor Location Map, in Attachment 3 of this Categorical Exemption. The noise measurements were conducted at three separate locations on June 26, 2023, over a period of 15 minutes in accordance with LAMC Section 111.01(a) as summarized in Table 7, Existing Ambient Noise Levels in the Project Site Vicinity, below.

As shown in Table 7, the ambient daytime noise in the vicinity of the Project Site ranges from 57.5 to 61.7  $L_{eq}$ . The maximum instantaneous noise level during the three 15-minute recordings was 81.0 dB  $L_{max}$  at Location A, where a refuse truck passed by the noise monitor. The primary noise sources that contributed most to the measured ambient noise levels were vehicle traffic and pedestrians.

**Table 7  
Existing Ambient Noise Levels in the Project Site Vicinity**

ID	Location	Primary Noise Sources	Noise Level Statistics <sup>a</sup>		
			$L_{eq}$	$L_{min}$	$L_{max}$
A	On the west side of Flores Street, north of the public alleyway	Vehicle traffic, refuse trucks, pedestrians	61.7	48.4	81.0
B	On the north side of Blackburn Avenue	Vehicle traffic, construction, pedestrians	57.5	46.7	72.0
C	On the east side of Kings Road, north of the public alleyway	Vehicle traffic, moving trucks, pedestrians	59.4	49.2	81.6

*Notes:*  
<sup>a</sup> Noise measurements were taken on Monday, June 26, 2023, at each location for a duration of 15 minutes. Pursuant to LAMC Sec. 111.01, ambient noise shall be averaged over a period of at least 15 minutes at a location and time of day comparable to that during which the measurement is taken of the particular noise source being measured.  
Parker Environmental Consultants, 2023.

### On-Site Construction Noise

Construction of the Proposed Project would require the use of heavy equipment for grading, building construction, and architectural coatings. During each construction phase there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of each activity. Table 8 identifies the representative noise levels for the types of construction equipment anticipated to be used for the Proposed Project,<sup>5</sup> including estimated usage factors found in the U.S. Department of Transportation, Federal

<sup>5</sup> Based on the construction equipment identified in the CalEEMod worksheets for the air quality and greenhouse gas emissions models presented in Attachments 4 of this Categorical Exemption.

Highway Administration, Roadway Construction Noise Model. The noise levels listed in Table 8, below, represent the A-weighted maximum sound level ( $L_{max}$ ), measured at a distance of 50 feet from the construction equipment.

It should be noted that not all construction noise equipment would be utilized concurrently during each phase and the location and spacing of heavy construction equipment and machinery would vary over the course of construction. Mobile equipment moves around the construction site with power applied in cyclic fashion (bulldozers, loaders), or to and from the site (trucks). Because the precise numbers and locations of equipment operating at the same time are not known, this analysis follows the recommended procedures contained in the Federal Transit Administrations Transit Noise and Vibration Impact Assessment Manual for a quantitative construction noise assessment. Pursuant to these procedures, the noise levels for the two loudest pieces of construction equipment were calculated from the center of the Project Site and the respective distance to each sensitive receptor.

**Table 8  
Noise Data for Selected Construction Equipment**

<b>Construction Phases</b>	<b>Construction Equipment</b>	<b>Estimated Usage Factor %</b>	<b>Actual Measures Noise Level at 50 Feet (dBA <math>L_{max}</math>)</b>
Grading	Grader (1)	40	85
	Rubber Tired Dozer (1)	40	82
	Tractor/Loader/Backhoe (2)	40	78
Building Construction	Forklifts (2)	20	75
	Tractor/Loader/Backhoe (2)	40	78
	Cement and Mortar Mixers (1)	40	79
	Generator Sets (1)	50	81
	Pavers (1)	50	77
	Rollers (1)	20	80
	Welders (3)	40	74
Architectural Coating	Aerial Lifts (2)	20	75
	Air Compressors (4)	40	78

*Source: FHWA, Roadway Construction Noise Model, Construction Noise Prediction, (at Table 1 CA/T Equipment noise emissions and acoustical usage factors database, January 2006.*

Sensitive receptors identified within 500 feet of the Project Site include:

- 1) Multi-family residential immediately north of the Project Site, located at 127 S. Flores Street and 132 S. Kings Road;
- 2) Multi-family residential located further north of the Project Site, between Kings Road and Flores Street;
- 3) Multi-family residential northwest of the Project Site, between Kings Road and Orlando Avenue;
- 4) Multi-family residential northeast of the Project Site, between Flores Street and Sweetzer Avenue;

- 5) Multi-family residential south of the Project Site fronting Blackburn Avenue;
- 6) Multi-family residential west of Orlando Avenue;
- 7) Multi-family residential east of Sweetzer Avenue;
- 8) Multi-family residential north of 1<sup>st</sup> Street.

Refer to Figure 1 of Attachment 3 for locations of these sensitive receptors.

As noted above, in furtherance of meeting the noise limits identified in LAMC Sections 112.04 and 112.05, a temporary noise barrier would be installed along the Project Site's northern property line to block the line-of-sight between the noise sources and surrounding sensitive receptors to the north. The construction of a temporary ¾ inch plywood noise barrier would be capable of attenuating the noise level by approximately 15 dBA. Additionally, noise control efforts to limit the construction activities to permissible hours of construction, incorporate noise shielding devices such as sound mufflers and echo barriers, and operate machinery in a manner that reduces noise levels (i.e., not operating several pieces of equipment simultaneously if possible) would be effective in reducing noise impacts. Localized and portable sound enclosures would also be used, as necessary, to significantly reduce noise from these types of equipment. Products such as Echo Barrier Outdoor noise barrier/absorbers can provide a 10 to 20 dBA noise reduction or more if the barrier is doubled up (see product data specifications included in Attachment 3).

Pursuant to LAMC Chapter IV, Article 1, Section 41.40, exterior construction activities that generate noise are prohibited between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, and between 6:00 P.M. and 8:00 A.M. on Saturday and federal holidays. Demolition and construction are prohibited on Sundays. The construction activities associated with the Proposed Project would comply with these LAMC requirements.

Further, the Applicant would be required to post informational signage providing contact information to report complaints regarding excessive noise. The City of Los Angeles Building Regulations Ordinance No. 178,048 requires a construction site notice to be provided that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the Project Site, and City telephone numbers where violations can be reported. The notice is required to be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public. With incorporation of the project design features, as described above, and regulatory compliance measures, affected residents and business owners would be provided advanced notice of potential noise impacts and opportunities to comment on construction noise.

As shown in Table 9, Estimated Exterior Construction Noise at Nearest Sensitive Receptors, the ambient exterior noise levels with project design features would range from 33.5 dBA to 65.5 dBA. As such, construction noise levels would not exceed 75 dBA at a distance of 50 feet from the Project Site (in compliance with LAMC 112.05) and would not exceed ambient noise levels by

**Table 9  
Estimated Exterior Construction Noise at Nearest Sensitive Receptors**

ID <sup>a</sup>	Ambient Noise (dBA L <sub>eq</sub> ) <sup>b</sup>	Noise Level Impact (dBA L <sub>eq</sub> ) by Phase <sup>c</sup>			Construction Noise Threshold (dBA L <sub>eq</sub> ) <sup>d</sup>	Significant Impact?
		Grading	Building Construction	Architectural Coating		
1	61.7	65.5	63.0	60.5	66.7	No
2	61.7	50.7	48.2	45.7	66.7	No
3	59.4	45.1	42.6	40.1	64.4	No
4	61.7	59.2	56.7	54.2	66.7	No
5	57.5	44.5	42.1	39.5	62.5	No
6	59.4	38.5	36.0	33.5	64.4	No
7	61.7	39.4	36.9	34.4	66.7	No
8	61.7	38.9	36.4	33.9	66.7	No

**Notes:**

<sup>a</sup> ID refers to the sensitive receptor locations identified in Figure 1, Noise Monitoring and Sensitive Receptor Location Map, of Attachment 3.

<sup>b</sup> Daytime noise levels are based on actual noise measurements taken at the Project Site vicinity.

<sup>c</sup> Calculations based on the loudest two pieces of heavy construction equipment specific to each phase.

<sup>d</sup> The significance threshold is an increase 5 dBA or more in relation to the ambient noise measurements for each sensitive receptor (LAMC 112.04).

Source: Parker Environmental Consultants, 2023 (see Attachment 3, Noise Monitoring Data and Calculations Worksheets).

more than 5 dBA at any of the sensitive receptors (in compliance with LAMC 112.04). As such, temporary construction-related noise impacts would be considered less than significant in accordance with City requirements and standards.

*Off-Site Construction Noise*

In addition to the on-site construction noise sources addressed above, which are regulated under the City’s Noise Ordinance, other noise sources may be generated off-site resulting from materials delivery, concrete mixing trucks, haul trucks, and other trucks from workers accessing the Project Site during construction. The highest of these noise sources would be generated by haul trucks for grading export during the first two months of construction. Based on the total volume of construction debris, the highest number of haul trips would occur during the grading phase with an estimated 5,000 cubic yards of soil export. Assuming an average of 14 cubic yards per haul truck, the soil export during the two-month grading phase would generate approximately 714 one-way haul trips, distributed over an approximate 44-day period. This would result in approximately 16 haul trips per day. The addition of 16 haul truck trips per day would not result in any significant roadway noise impacts. As such, the temporary noise increase from haul truck trips would not significantly increase noise in the Project area. As such, the hauling activities during construction would result in a less than significant impact to off-site noise receptors.



## *Operational Noise*

### *Mechanical Equipment*

As part of the Proposed Project, new mechanical equipment, HVAC units, and exhaust fans would be installed on the roof of the proposed structure. However, the operation of this equipment would be similar to the existing HVAC equipment currently surrounding the Project Site. Further, the design and placement of HVAC units and exhaust fans would be required to comply with the regulations under Section 112.02 of the LAMC, which prohibits noise from air conditioning, refrigeration, heating, pumping, and filtering equipment from exceeding the ambient noise level on the premises of other occupied properties by more than five decibels. Thus, the on-site equipment would be designed and located such that they would be appropriately shielded and fitted with noise muffling devices to reduce operational noise levels. The Proposed Project will be subject to conditions of approval to ensure that the project operator complies with the prescriptive and performance-based requirements of the LAMC. In addition, as a commercial office development, it is anticipated that mechanical equipment would be limited to daytime operational hours. Thus, operational noise impacts from HVAC and mechanical equipment would be less than significant.

### *Rooftop Deck and Open Space Noise*

The Proposed Project would include approximately 7,516 square feet of open space. The exterior open space areas include an 855 square-foot open space courtyard and a 745 square-foot landscaped area on the 4<sup>th</sup> level fronting 3<sup>rd</sup> Street; and a 909 square-foot sky deck on the northeast corner of the Project Site, fronting Flores Street. Based on the size of these open space areas and the type of amenities provided, it is conservatively anticipated that these areas could accommodate up to 32 people on the 4<sup>th</sup> level courtyard and up to 18 people on the sky deck for casual outdoor gatherings based on occupiable space.

Since the Proposed Project's open space would be limited to residents and guests, it is anticipated that the sky deck and courtyard would emit low-level passive noise. Outdoor activities and noise levels within these areas would be regulated by the homeowner's association bylaws or otherwise specified in rental lease agreements to ensure noise levels do not create a nuisance to other occupants of the buildings. There is no objective criterion for analyzing unamplified human voices within the LAMC. The only applicable criteria the LAMC code provides is that the Proposed Project shall adhere to LAMC Section 116.01, which states that it shall be unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary, and unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area. It is not expected that the intended use (i.e., only up to a few people having a conversation, relaxing, or enjoying the outdoors) would violate the prohibition of "loud, unnecessary and unusual noise" criteria. Additionally, due to the nature of the use, it is unlikely that the Proposed Project would operate at such full capacity often or for a prolonged period of time that would result in excessive crowd noise. Further, the roof deck would be surrounded with planters and either glass or concrete

railings that would help to further attenuate noise in the surrounding area. As such, noise from the exterior common open space areas would be less than significant.

Furthermore, for purposes of estimating noise from people congregating on the 4<sup>th</sup> level open space, which is oriented towards the south, and the rooftop sky deck, which orients to the northeast, reference noise levels of 65 dBA and 62 dBA ( $L_{eq}$  at a distance of 3.3 feet) for a male and a female speaking in a raised voice, respectively, were used to analyze noise from the use of the outdoor open space. For the 4<sup>th</sup> level courtyard and landscaped area, assuming 32 individuals<sup>6</sup> occupy this space at one time and up to 50 percent of the people (half of which would be male and the other half female) would be talking at the same time, the noise levels from activities would be approximately 75.80 dBA  $L_{eq}$  within the courtyard. For sky deck, it is assumed the 18 people (half of which would be male and the other half female) would be talking at the same time, the noise levels from activities would be approximately 73.34 dBA  $L_{eq}$  within the sky deck.<sup>7</sup>

The 4th level courtyard and landscaped areas are oriented to the south, and are enclosed by the west, east and north facades of the building. Thus, noise impacts to the nearby residential land uses to the north and northeast would be shielded by the Proposed Project. The noise levels of the outdoor use areas on the 4<sup>th</sup> level and sky deck were calculated at the two closest sensitive receptor locations (identified in Figure 1 of Attachment 3) factoring distance between the source and receptor and barrier attenuation. As shown in Table 10, below, the estimated outdoor noise levels would not exceed 5 dBA above the respective ambient noise level thresholds at any of the sensitive receptors. As such, noise impacts from outdoor activities would be less than significant.

**Table 10  
Estimated Outdoor Noise Levels for Nearest Sensitive Receptors**

<b>Sensitive Receptor<sup>a</sup></b>	<b>Ambient Noise Levels (dBA)</b>	<b>Outdoor Deck Noise Levels (dBA)<sup>c</sup></b>	<b>Ambient + Crowd Noise Levels (dBA)</b>	<b>Threshold of Significance Criteria<sup>d</sup></b>	<b>Exceedance Over Significance Criteria</b>	<b>Significant Impact?</b>
Multi-family to the north	61.7	39.05	61.72	66.7	0	<b>No</b>
Multi-family to the northeast	61.7	42.49	61.75	66.7	0	<b>No</b>

**Notes**

<sup>a</sup> See Figure 1, Noise Monitoring and Sensitive Receptor Location Map in Attachment 3 of this Categorical Exemption.

<sup>b</sup> The significance criteria are based on the ambient noise levels plus 5 dBA  $L_{eq}$ .

Source: Calculations based on Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Final Report, May 2006 and Caltrans' Technical Noise Supplement, September 2013. Parker Environmental Consultants, 2023.

<sup>6</sup> Based on an average of 50 square feet per occupant.

<sup>7</sup> Cyril M. Harris, Handbook of Acoustical Measurements and Noise Control, Third Edition, 1991. See Noise calculation worksheets in Attachment 3.

## *Roadway Traffic Noise*

With respect to traffic noise impacts, in order for a new noise source to be audible, there would need to be a 3 dBA or greater CNEL noise increase. According to Caltrans guidelines, the traffic volume on any given roadway would need to double in order for a 3-dBA increase in ambient noise to occur. LADOT performed off-peak and on-peak commute hour traffic counts at the nearest intersection of 3<sup>rd</sup> Street and Kings Road in August 2018.<sup>8</sup> This intersection experienced a total of 10,619 vehicles during the off-peak hours of 10:00 AM to 1:00 PM and during commute hours of 3:00 PM to 6:00 PM, with approximately 4,757 of those vehicles traveling in a westbound along 3<sup>rd</sup> Street passing the Project Site. According to the Proposed Project's Transportation Assessment, the Proposed Project would result in approximately 865 net daily vehicle trips. Accounting for a 1% ambient annual trip increase plus 865 daily trips from the Proposed Project, this intersection roadway segment would experience approximately 5,965 trips during peak commute hours for the year 2025. This is based on a conservative estimate, assuming that all of the Proposed Project trips would utilize this intersection, and assuming that all trips would occur during the peak hours.

Therefore, the Proposed Project's estimated 865 average daily trips would represent a small percentage increase in the daily volumes during traffic peak hours at this roadway segment. Based on the proposed commercial office space and an estimated daily trip increase of 865 trips, the Proposed Project is not anticipated to double the amount of traffic volumes along 3<sup>rd</sup> Street in a 24-hour period. This is also a conservative estimate, assuming all trips occur between 10:00 AM and 6:00 PM. As such, increased mobile source noise from the Proposed Project's increase in traffic would be less than 3 dBA, and operational noise impacts due to roadway noise would be less than significant.

## ***Air Quality***

### *Construction Emissions*

With respect to air quality during the construction phases, the Proposed Project would be required to comply with all applicable City, regional, state, and federal regulatory compliance measures from agencies including, but not limited to, the City of Los Angeles, the Southern California Air Quality Management District (SCAQMD), and the California Code of Regulations. As required by CEQA, the Proposed Project's construction emissions were quantified utilizing the California Emissions Estimator Model (CalEEMod *Version 2022.1.1.21*), as recommended by the SCAQMD. Table 11, Estimated Peak Daily Construction Emissions, identifies daily emissions that are estimated to occur on peak construction days for each phase of the Proposed Project's construction.

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<sup>8</sup> *City of Los Angeles, NavigateLA, LADOT Manual Traffic County Summary, [https://navigate.lacity.org/dot/traffic\\_data/automatic\\_counts/3RD.KINGSRD.180822-MAN.pdf](https://navigate.lacity.org/dot/traffic_data/automatic_counts/3RD.KINGSRD.180822-MAN.pdf), accessed May 2023.*

This analysis assumes a Project construction schedule of approximately 24 months, with final buildout occurring in 2026. Construction activities associated with the Project would be undertaken in three main steps: (1) grading, (2) building construction, and (3) architectural coatings/finishings.

**Table 11  
Estimated Peak Daily Construction Emissions**

Emission Source	Emissions in Pounds per Day					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2024	1.50	16.6	15.4	0.04	3.58	1.84
2025	1.61	14.9	19.6	0.04	3.49	1.76
2026	7.72	11.1	19.2	0.02	1.54	0.62
<b>Maximum Daily Construction Emissions:</b>	<b>7.72</b>	<b>16.6</b>	<b>19.6</b>	<b>0.04</b>	<b>3.58</b>	<b>1.84</b>
<b>SCAQMD Daily Significance Thresholds:</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

*Note: Calculations assume compliance with SCAQMD Rule 403 – Fugitive Dust and Rule 1113 – Architectural Coatings. The interface on CalEEMod (Version 2022.1.1.21) lists these rules under the “Mitigation” tab, when they are actually required rules by the SCAQMD. The term “Mitigation” in CalEEMod is defined differently than “Mitigation Measures” in this Categorical Exemption. The model does not allow for these regulatory measures to be implemented in the “unmitigated project” impact scenario. As such, the values that appear under the “Mitigated” results columns are reflective of the Proposed Project impacts that are compliant with required regulations. Source: CalEEMod 2022.1.1.21, Calculation sheets are provided in Attachment 4 to this Categorical Exemption.*

As shown in Table 11, construction-related daily emissions associated with the Proposed Project would not exceed any regional SCAQMD significance thresholds for criteria pollutants during the construction phases. These calculations assume that appropriate dust control measures would be implemented as part of the Proposed Project during each phase of development, as required and regulated by SCAQMD Rule 403 – Fugitive Dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas. As such, construction-related emissions associated with the Proposed Project are not expected to exceed significance thresholds for criteria pollutants and hazardous substances. Further, all grading and earthwork activities would be conducted in accordance with applicable City, regional, state, and federal regulatory compliance measures. As such, construction of the Proposed Project would not result in the accidental release of hazardous pollutants. Therefore,

temporary constructed-related air quality impacts related to criteria pollutants and hazardous substances would be considered less than significant.

#### *Localized Construction Emissions*

The SCAQMD has developed localized significance thresholds (LSTs) that are based on the amount of pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. These localized thresholds apply to projects that are less than or equal to five acres in size and are only applicable to the following criteria pollutants: NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards, and are developed based on the ambient concentrations of that pollutant for each SRA. For PM<sub>10</sub>, the LSTs were derived based on requirements in SCAQMD Rule 403 — Fugitive Dust. For PM<sub>2.5</sub>, the LSTs were derived based on a general ratio of PM<sub>2.5</sub> to PM<sub>10</sub> for both fugitive dust and combustion emissions.

LSTs are provided for each of SCAQMD's 38 source receptor areas (SRA) at various distances from the source of emissions. The Project Site is located within SRA 1. The nearest sensitive receptors that could potentially be subject to localized air quality impacts associated with construction of the Proposed Project include the residential buildings to the north, northeast, and northwest of the Project Site. Given the proximity of these sensitive receptors to the Project Site, and pursuant to SCAQMD guidance, the LSTs with receptors located within 25 meters (82.02 feet) are used to address the potential localized air quality impacts associated with the construction-related NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions for each construction phase.

Emissions from construction activities have the potential to generate localized emissions that may expose sensitive receptors to harmful pollutant concentrations especially during the grading phase. However, as shown in Table 12, Localized On-Site Peak Daily Construction Emissions, peak daily emissions generated within the Project Site during construction activities for each phase would not exceed the applicable construction LSTs for a site less than one acre in SRA 1.

The localized air quality calculations assume that appropriate dust control measures would be implemented as part of the Proposed Project during each phase of development, as required by SCAQMD Rule 403 - Fugitive Dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas. Therefore, with compliance with SCAQMD Rule 403, localized air quality impacts from construction activities on the off-site sensitive receptors would be less than significant.

**Table 12  
Localized On-Site Peak Daily Construction Emissions**

Construction Phase <sup>a</sup>	Total On-site Emissions (Pounds per Day)			
	NO <sub>x</sub> <sup>b</sup>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Grading	13.6	13.8	2.77	1.60
Building Construction	10.6	13.9	0.42	0.39
Architectural Coatings	6.01	7.59	0.13	0.12
<b>Maximum Daily Emissions:</b>	<b>13.6</b>	<b>13.9</b>	<b>2.77</b>	<b>1.60</b>
<b>SCAQMD Localized Thresholds <sup>c</sup></b>	<b>74</b>	<b>680</b>	<b>5</b>	<b>3</b>
<b>Potentially Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<p><i>Notes:</i></p> <p><sup>a</sup> The localized thresholds for all phases are based on a receptor distance of 25 meters in SCAQMD's SRA 1 for a Project Site less than one acre.</p> <p><sup>b</sup> The localized thresholds listed for NO<sub>x</sub> in this table takes into consideration the gradual conversion of NO<sub>x</sub> to NO<sub>2</sub>, and are provided in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" document prepared by the SCAQMD. As discussed previously, the analysis of localized air quality impacts associated with NO<sub>x</sub> emissions is focused on NO<sub>2</sub> levels as they are associated with adverse health effects.</p> <p><sup>c</sup> SCAQMD, Final LST Methodology Document, Appendix C – Mass Rate LST Look-Up Tables, October 21, 2009, and Sample Construction Scenarios for Projects Less than Five Acres in Size, Appendix K. Source: CalEEMod 2022.1.1.21, Calculation worksheets are provided in Attachment 4 to this Categorical Exemption.</p>				

*Operational Emissions*

*Existing Emissions*

Since the existing Project Site is currently vacant, there are no existing emissions occurring at the Project Site.

*Proposed Project Emissions*

The Proposed Project would result in the construction, use, and maintenance of an eight-story mixed-use residential and commercial development. The Proposed Project would generate both stationary and mobile emissions, including the consumption of electricity and natural gas, landscape maintenance, and vehicles traveling to and from the Project Site. Such emissions are typical of a mixed-use development such as the Proposed Project. The analysis of daily operational emissions associated with the Proposed Project has been prepared utilizing CalEEMod (*Version 2022.1.1.21*), as recommended by the SCAQMD. The results of these calculations are presented in Table 13, Proposed Project Estimated Daily Regional Operational Emissions, below. As shown in Table 13, the operational emissions generated by the Proposed Project would not exceed the regional thresholds of significance set by the SCAQMD. Therefore, impacts associated with regional operational emissions from the Proposed Project would be less than significant.

**Table 13  
Proposed Project Estimated Daily Regional Operational Emissions**

Emissions Source	Emissions in Pounds per Day					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Summertime (Smog Season) Emissions</b>						
Mobile Sources	1.82	1.08	11.9	0.03	2.36	0.61
Area Sources	2.86	0.06	6.74	<0.005	0.01	<0.005
Energy Sources	<0.005	0.01	0.01	<0.005	<0.005	<0.005
Stationary Sources	0.82	3.67	2.09	<0.005	0.12	0.12
<b>Total Project Emissions:</b>	<b>5.50</b>	<b>4.82</b>	<b>20.8</b>	<b>0.03</b>	<b>2.49</b>	<b>0.74</b>
<b>SCAQMD Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Potentially Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Wintertime (Non-Smog Season) Emissions</b>						
Mobile Sources	1.79	1.18	11.3	0.02	2.34	0.61
Area Sources	2.03	--	--	--	--	--
Energy Sources	<0.005	0.01	0.01	<0.005	<0.005	<0.005
Stationary Sources	0.82	3.67	2.09	<0.005	0.12	0.12
<b>Total Project Emissions:</b>	<b>4.70</b>	<b>4.86</b>	<b>13.4</b>	<b>0.03</b>	<b>2.48</b>	<b>0.73</b>
<b>SCAQMD Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Potentially Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<i>Source: CalEEMod 2022.1.1.21, Calculation worksheets are provided in Attachment 4.</i>						

**Greenhouse Gas Emissions**

Neither the City of Los Angeles, SCAQMD, nor the State CEQA Guidelines Amendments provide any adopted thresholds of significance for addressing a mixed-use residential and commercial project’s GHG emissions. Nonetheless, Section 15064.4 of the CEQA Guidelines Amendments serves to assist lead agencies in determining the significance of the impacts of GHGs. Because the City of Los Angeles does not have an adopted quantitative threshold of significance for a mixed-use project’s generation of greenhouse gas emissions, the following analysis is based on a combination of the requirements outlined in the CEQA Guidelines.

For informational purposes, and consistent with Section 15064.4 of the CEQA Guidelines, this analysis includes an impact determination based on the following: (1) the extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. The Guidelines do not mandate the use of absolute numerical thresholds to measure the significance of greenhouse gas emissions. As such, this analysis relies on the extent to which the Proposed Project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

*Construction*

Greenhouse gas emissions were calculated using CalEEMod (*Version 2022.1.1.21*). Construction of the Proposed Project would emit GHG emissions through the combustion of fossil fuels by heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the Project Site. Emissions of GHGs were calculated for each year of construction of the Proposed Project and the results of this analysis are presented in Table 14, Proposed Project Construction-Related Greenhouse Gas Emissions. As shown in Table 14, the total GHG emissions from construction activities related to the Proposed Project would be approximately 777.8 metric tons with the highest emissions occurring in 2025. Total construction GHG emissions are amortized over the 30-year life of the Proposed Project and added to the total operational impacts.

**Table 14  
Proposed Project Construction-Related Greenhouse Gas Emissions**

Year	CO <sub>2</sub> e Emissions (Metric Tons per Year) <sup>a</sup>
2024	45.8
2025	439
2026	293
<b>Total Construction GHG Emissions:</b>	<b>777.8</b>
<i>Note:</i> <sup>a</sup> Construction CO <sub>2</sub> values were derived using CalEEMod Version 2022.1.1.21. Calculation data and results are provided in Attachment 4, Air Quality Modeling and Greenhouse Gas Emissions Worksheets.	

*Operation*

*Existing Baseline GHG Emissions*

Since the Project Site is currently vacant, there are no existing GHG emissions at the Project Site.

*Project GHG Emissions*

The GHG emissions resulting from operation of the Proposed Project, which involves the usage of on-road mobile vehicles, electricity, natural gas, water, landscape equipment and generation of solid waste and wastewater, were calculated using CalEEMod. The Proposed Project’s compliance with the *L.A. Green Building Code* and other project design features would be effective in reducing GHG emissions, such as the Project Site being an infill lot and its proximity to transit and walking distance to a major employment center. As shown in Table 15, below, the net increase in GHG emissions generated by the Proposed Project would result in a net increase of 582.76 CO<sub>2</sub>e MTY, which is well below the 3,000 MTCO<sub>2</sub>e per year threshold of significance considered by the SCAQMD.



**Table 15  
Proposed Project Operational Greenhouse Gas Emissions**

Emissions Source	Estimated Project Generated CO <sub>2</sub> e Emissions (Metric Tons per Year)
Mobile	367
Area	2.42
Energy	167
Water	10.6
Waste	5.13
Refrigerants	0.10
Stationary	4.58
Construction Emissions <sup>a</sup>	25.93
<b>Proposed Project Total:</b>	<b>582.76</b>
<i>Notes:</i> <sup>a</sup> The total construction GHG emissions were amortized over 30 years and added to the operation of the Project. Calculation data and results provided in Attachment 4 to this Categorical Exemption.	

The Proposed Project’s structural and operational features such as low-flow plumbing fixtures and implementing energy-efficient appliances during the life of the Proposed Project would reduce GHG emissions. Additionally, the Proposed Project would not include natural gas uses in residential, retail and office uses. The Proposed Project would comply with the various regulations, plans, and policies that have been adopted with the intent of reducing GHG emissions in furtherance of the State’s GHG reduction targets under SB 32.

*Plan Consistency*

Through required implementation of the Green Building Code, the Project Site’s location on an infill site, the Proposed Project would be consistent with local and statewide goals and policies aimed at reducing the generation of GHGs, including SB 32, SB 375, SCAG’s RTP/SCS, L.A. Green Building Code, and CARB’s Scoping Plan.

*Consistency with L.A. Green Building Code*

The L.A. Green Building Code contains both mandatory and voluntary green building measures for the reduction of GHG emissions through energy conservation. In accordance with the City of Los Angeles Green Building Code (Chapter IX, Article 9, of the LAMC), the Project shall comply with all applicable mandatory provisions of the Los Angeles Green Code and as it may be subsequently amended or modified, including:

**Energy Conservation.** The Proposed Project would include the development of a mixed-use residential and commercial development with approximately 90,066 square feet of floor area. As mandated by the L.A. Green Building Code, the Proposed Project must meet Title 24 2022 Standards and would include ENERGY-STAR appliances, where applicable. Furthermore,

pursuant to Ordinance No 187,714, Chapter IX of the LAMC would require all new buildings to be all-electric buildings, effective January 23, 2023. All-electric includes electricity as the sole source of energy for all lighting, appliances and/or equipment, including, but not limited to, space heating, water heating, cooking appliances, and drying appliances.

**Solid Waste Reduction Efforts.** *L.A. Green Building Code* Section 5.408.1 and LAMC Section 66.32 require the construction contractor to obtain an AB 939 Compliance Permit certifying the delivery of the construction waste to a certified construction and demolition waste processing facility. Diversion efforts would be accomplished through source reduction, recycling, and composting. Finally, the Proposed Project is required by the California Solid Waste Reuse and Recycling Access Act of 1991 to provide adequate storage areas for collection and storage of recyclable waste materials. As such, a minimum 50 percent reduction of the Proposed Project's waste stream to the local landfill would reduce methane emissions and thus lower the Proposed Project's contribution to global GHG emissions.

**Water Conservation.** As mandated by the *L.A. Green Building Code*, the Proposed Project would be required to provide separate submeters for individual leased, rented or other tenant spaces projected to consume more than 100 gallons per day and any building or addition that is projected to consume more than 1,000 gallons per day. Plumbing fixtures would need to comply with one of the following: (1) a 20% reduction in the building's "water use baseline" as demonstrated in Table 5.303.2.2 of the Los Angeles Plumbing Code; or (2) comply with the maximum flow rates shown in Table 5.303.2.3 of the Plumbing Code. The Proposed Project would also be required to develop a water budget for landscape irrigation use and install automatic irrigation systems with weather or soil moisture-based controllers.

**Zero Emission Vehicles.** The Proposed Project would support zero emission vehicles with the promotion of electric vehicle supply equipment (EVSE) on-site. Pursuant to the *L.A. Green Building Code*, a minimum of 30 percent of the total code required residential and non-residential parking is required to be capable of supporting future EVSE; and a minimum of 20 percent for of the total code required non-residential parking is required to be electric vehicle charging stations (EVCS), which can be counted towards the total number of EVSE spaces. The provision of EV infrastructure would further serve to promote the utilization of alternative fueled vehicles thus, reducing the combustion of fossil fuels. Based on these factors, the Proposed Project's vehicle trips would decrease overall per capita energy consumption, decrease reliance on fossil fuels, and would serve to promote reliance on renewable energy sources.

#### *Consistency with SB 375*

California SB 375 requires integration of planning processes for transportation, land-use and housing. Under the bill, each Metropolitan Planning Organization would be required to adopt a Sustainable Community Strategy (SCS) to encourage compact development that reduces passenger vehicle miles traveled and trips so that the region will meet the target provided in the Scoping Plan, created by CARB, for reducing GHG emissions. SB 375 requires SCAG to direct

the development of the SCS for the region. A discussion of the Proposed Project's consistency with the SCS is provided further below.

#### *Consistency with the 2022 Scoping Plan*

Jurisdictions that want to take meaningful climate action (such as preparing a non-CEQA-qualified CAP or as individual measures) aligned with the State's climate goals in the absence of a CEQA-qualified CAP should also look to the three priority areas (transportation electrification, VMT reduction, and building decarbonization). To assist local jurisdictions, the 2022 Scoping Plan Update presents a non-exhaustive list of impactful GHG reduction strategies that can be implemented by local governments within the three priority areas (Priority GHG Reduction Strategies for Local Government Climate Action Priority Areas). A detailed assessment of goals, plans, and policies implemented by the City which would support the GHG reduction strategies in the three priority areas is provided below. In addition, further details are provided regarding the correlation between these reduction strategies and applicable actions included in Table 2-1 (page 72) of the Scoping Plan (Actions for the Scoping Plan Scenario).

**Transportation Electrification.** The City's goals of converting the municipal fleet to zero emissions and installation of EV chargers throughout the City would be consistent with the Scoping Plan goals of transitioning to EVs. Pursuant to City's Green Building Code, a minimum of 30 percent of the Proposed Project's total code required parking is required to be capable of supporting future EVSE. Twenty (20) percent of the required commercial parking spaces and 25 percent of the required residential parking spaces is required to be low power electric vehicle charging stations (EVCS), which can be counted towards the total number of EVSE spaces. The provision of EV infrastructure would further serve to promote the utilization of alternative fueled vehicles thus, reducing the combustion of fossil fuels. Therefore, the Proposed Project would not conflict with these goals by installing EV chargers in at least 10 percent of total proposed parking spaces. Installation of additional EV chargers would encourage adoption of EVs. The Proposed Project would comply with the LAMC by installing EV chargers in at least 10 percent of total proposed parking spaces which would exceed the CALGreen 2022 requirement.

**VMT Reduction.** The City of Los Angeles Mobility Plan 2035 which is the Transportation Element of the City's General Plan contains measures and programs related to VMT reduction throughout the City. With regard to parking standards, the implementation of Mobility Plan Programs and AB 2097 reduce or eliminate parking requirements for certain types of developments near transit (within half a mile). The Proposed Project would not be required to provide residential or commercial parking requirements, and would only provide vehicle parking for the commercial component. Therefore, the Project would provide a reduced number of parking and would serve to reduce vehicle trips. Additionally, the Proposed Project represents an infill development within an existing urbanized area that would concentrate new development consistent with the overall growth pattern encouraged in the RTP/SCS. The Proposed Project's close proximity to neighborhood-serving commercial/retail land uses and regional transit would result in fewer trips and a reduction

to the Proposed Project's VMTs as compared to the base trip rates for similar stand-alone residential and commercial uses that are not located in close proximity to transit. The Proposed Project would provide residents and visitors with convenient access to public transit and opportunities for walking and biking. Therefore, the location of the Project Site encourages a variety of transportation options. Thus, these Proposed Project characteristics would result in a reduction in VMT, which would overall reduce GHG emissions.

**Building Decarbonization.** The City has updated the LAMC with requirements for all new buildings, with some exceptions to be all-elective, which will reduce GHG emissions related to natural gas combustion. Space heating, water heating and cooking for non-restaurant uses would be required to be powered by electricity. In future years, the LADWP will be required to increase the amount of renewable energy in the power mix to comply with SB 100 requirements. The Proposed Project would be required to comply with the City's LAMC that requires all new buildings to be all-electric buildings and would not include natural gas uses in the residential and retail uses. The combination of the all-electric LAMC regulations and increasing availability of renewable energy will serve to reduce GHG emissions from sources traditionally powered by natural gas.

The Proposed Project would be designed and constructed to meet *L.A. Green Building Code* standards by including several measures designed to reduce energy consumption, including, but not limited to, installing efficient lighting fixtures, low-flow plumbing fixtures, and ENERGY STAR-rated appliances. These measures would further promote a reduction in GHG emissions, which would be consistent with the goals of 2022 Scoping Plan.

*Consistency with Connect SoCal (2020 RTP/SCS)*

The Proposed Project is consistent with the following key GHG reduction strategies in SCAG's Connect SoCal (2020 RTP/SCS), which are based on changing the region's land use and travel patterns; focusing growth near destinations and mobility options; promoting diverse housing choices; leveraging technology innovations; supporting implementation of sustainability policies; and promoting a green region.

Based on a walkability assessment of the Project area by WalkScore.com, the Project Site is rated with a score of 93 of 100 possible points and defined as "walker's paradise – daily errands do not require a car." In addition, the Proposed Project will provide bicycle storage areas. Walkscore.com also allocates a transit score of 63 to the Project Site, described as "good transit – many nearby public transportation options" and a bike score of 68 to the Project Site, described as "bikeable – some bike infrastructure."

The Proposed Project represents an infill development within an existing urbanized area that would concentrate new commercial uses within a High-Quality Transit Area (HQTA). The Proposed Project would provide employees, patrons, and visitors with convenient access to public transit and opportunities for walking and biking which would facilitate a reduction in vehicle miles traveled and related vehicular GHG emissions. These and other measures would further promote a

reduction in vehicle miles traveled and subsequent reduction in GHG emissions, which would be consistent with the goals of SCAG's Connect SoCal Plan.

As demonstrated above, the Proposed Project's characteristics and design features, coupled with compliance with mandatory regulatory measures would be consistent with local and statewide goals and policies aimed at reducing the generation of GHGs, including SB 32, SB 375, SCAG's RTP/SCS, *L.A. Green Building Code*, and CARB's 2022 Scoping Plan. Therefore, the Proposed Project's generation of GHG emissions would not conflict with any applicable plan, policy or regulation for the purposes of reducing the emissions of greenhouse gases.

## ***Water Quality***

### *Groundwater*

Based on the Department of Toxic Substances Control EnviroStor Database, the Project Site is not listed on any national, state, and local environmental databases for cleanup, permitting, or investigation of any hazardous waste contamination. Therefore, the Proposed Project would not exacerbate any hazardous conditions on the Project Site during construction that could affect groundwater conditions. Moreover, any hazardous materials utilized during construction would be used, stored, and disposed of in accordance with all applicable regulatory requirements, and would therefore not pose any potential impacts to groundwater or surface water quality.

Based on information provided in the Geotechnical Investigation prepared for the Proposed Project (Attachment 7 to this Categorical Exemption), static groundwater was encountered during field explorations at depths of 14 and 23½ feet below the existing ground surface. Additionally, a review of available data for an on-site groundwater monitoring well indicates that the depth to groundwater generally ranges between 14 and 16 feet below the ground surface. Based on the reported historic high groundwater levels in the site vicinity, the depth to groundwater encountered, and the depth of proposed construction, static groundwater is neither expected to be encountered during construction, nor have a detrimental effect on the Proposed Project. However, the proposed structure and buildings foundations may result in excavations that are near existing groundwater elevations, and static groundwater or groundwater seepage may be encountered during construction. It is not uncommon for groundwater levels to vary seasonally or for groundwater seepage conditions to develop where none previously existed, especially in impermeable fine-grained soils which are heavily irrigated or after seasonal rainfall. In addition, recent requirements for stormwater infiltration could result in shallower seepage conditions in the immediate site vicinity. Proper surface drainage of irrigation and precipitation would be critical for future performance of the Proposed Project. Recommendations for drainage are provided in the Geotechnical Report.

The Proposed Project, once operational, would not use hazardous materials other than modest amounts of typical cleaning supplies and solvents used for janitorial purposes that are typically associated with the operation of the Proposed Project and the use of these substances would comply with State Health Codes and Regulations. As such, the Proposed Project does not include potential sources of contaminants that could potentially degrade water quality.

*Stormwater*

The Project Site is currently vacant. The Project Site was previously developed with a private school, that was demolished in 2022. Therefore, approximately 100 percent of the Project Site was previously covered with impervious surfaces, with the exception of some landscaping. With respect to water quality from stormwater, surface water runoff from the Project Site flows southbound along Flores Street into a storm drain inlet located at the southeast corner of the Project Site or flows westbound along 3<sup>rd</sup> Street into a storm drain inlet located approximately 55 feet west of the Project Site (see *Figure 1 in Attachment A of this Categorical Exemption*). The Proposed Project would continue to generate surface water runoff similar to existing conditions, and stormwater would be directed towards existing stormwater infrastructure that currently serves the Project Site.

A Storm Water Pollution Prevention Plan (SWPPP) would be required to mitigate the effects of erosion and the inherent potential for sedimentation and other pollutants entering the stormwater system. The SWPPP would identify Best Management Practices (BMPs) for erosion control and other measures to meet the National Pollutant Discharge Elimination System (NPDES) requirements for stormwater quality. Implementation of the BMPs identified in the SWPPP and compliance with the NPDES and City discharge requirements would ensure that the construction of the Proposed Project would not violate any water quality standards or discharge requirements, or otherwise substantially degrade water quality during construction.

Additionally, the Proposed Project would be required to demonstrate compliance with Low Impact Development (LID) Ordinance standards and retain and treat the first 3/4-inch of rainfall in a 24-hour period or the rainfall from an 85<sup>th</sup> percentile 24-hour runoff event, whichever is greater. To ensure that all stormwater related BMPs are constructed and/or installed in accordance with the approved LID Plan, the City of Los Angeles requires a Stormwater Observation Report to be submitted to the City prior to the issuance of the Certificate of Occupancy. Compliance with the LID Ordinance would ensure that the Proposed Project would not adversely affect water quality or significantly contribute to site runoff during the operation of the Proposed Project. Therefore, the Proposed Project would result in less than significant impacts to the existing stormwater infrastructure serving the Project Site.

**e) The Project Site can be adequately served by all required utilities and public services.**

***Water***

The Project Site is located within the service area of the Los Angeles Department of Water and Power (LADWP) for potable water service. The LADWP’s 2020 Urban Water Management Plan (“UWMP”) projects the City of Los Angeles will have a reliable water supply of approximately 509,501 acre-feet per year (“AFY”) and 565,751 AFY in 2025 and 2045, respectively, based on growth projections of the 2020-2045 RTP/SCS. Thus, projects that are consistent with the underlying zoning and allowable density requirements of the LAMC and General Plan, are inherently consistent with the future water demands established in the 2020 UWMP. The Proposed Project would be consistent with the underlying land use of the Project Site. Based on the sewer

generation factors provided by the Bureau of Sanitation and assuming all water usage converts to wastewater, it is estimated that the Proposed Project's net increase in water demand would be approximately 9,876 gallons per day, or approximately 11 AFY, as shown in Table 16, below.

**Table 16  
Proposed Project Estimated Water Demand**

Type of Use	Size	Water Demand Rate (gpd/unit) <sup>a</sup>	Total Water Demand (gpd)
<b>Proposed Project</b>			
Residential: Studio	10 du	75 gpd/du	750
Residential: One-bedroom	35 du	110 gpd/du	3,850
Residential: Two-bedroom	27 du	150 gpd/du	4,050
Residential: Three-bedroom	5 du	190 gpd/du	950
Retail	11,026 sf	0.025 gpd/sf	276
<b>Total Proposed Project Water Demand:</b>			<b>9,876</b>
<i>Notes: du= dwelling units; sf=square feet; gpd= gallons per day</i> <sup>a</sup> <i>Consumption Rates based on City of Los Angeles Department of Public Works, Bureau of Sanitation, Sewer Generation Factor for Residential and Commercial Categories table, effective April 6, 2012. It is assumed that all water usage would convert to wastewater.</i> <i>Source: Parker Environmental Consultants, 2023.</i>			

Articles 4 and 9 of Chapter IX of the LAMC establish citywide water efficiency standards and require water-saving systems and technologies in buildings and landscapes to conserve and reduce water usage. Plumbing fixtures would need to comply with one of the following: (1) a 20% reduction in the building's "water use baseline" as demonstrated in Table 5.303.2.2 of the Los Angeles Plumbing Code; or (2) comply with the maximum flow rates shown in Table 5.303.2.3 of the Plumbing Code. The Proposed Project would also be required to develop a water budget for landscape irrigation use and install automatic irrigation systems with weather or soil moisture-based controllers. Compliance with the L.A. Green Building Code would further reduce the Proposed Project's operational water demands. Because the Proposed Project is consistent with the zoning and General Plan land use designations, and the Proposed Project's employment growth would be within SCAG's growth forecast, the Proposed Project's increased water demand has already been accounted for in the 2020 UWMP, and impacts upon water demand would be less than significant.

**Sewer**

The Project Site is served by an existing 8-inch sewer pipeline along the alleyway to the north of the Project Site and an 8-inch sewer pipeline along Flores Street (see *Figure 2 in Attachment A of this Categorical Exemption*). Wastewater from the Proposed Project would be treated by the Hyperion Water Reclamation Plant (HWRP), which treats an average daily flow of 275 million gallons per day (mgd) on an average dry weather day and with a maximum daily flow of 450 mgd. This equals a remaining capacity of 175 mgd of wastewater able to be treated at the HWRP. Based

on standard sewer flow rates published by the Bureau of Sanitation, the Proposed Project's sewer generation is expected to be 9,876 gallons per day. Pursuant to City policy, L.A. Sanitation and Environment will check the gauging of the sewer lines and make the appropriate decisions on how best to connect to the local sewer lines at the time of construction. The Applicant would be required to submit a Sewer Capacity Availability Request (SCAR) to verify the anticipated sewer flows and points of connection and to assess the condition and capacity of the sewer lines receiving additional sewer flows from the Proposed Project. If the public sewer has insufficient capacity to accommodate the Proposed Project's wastewater flows, the Applicant would be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connect permit would be made at the time. The installation of a secondary line, if needed, would require minimal trenching and pipeline installation and would not result in any adverse environmental impacts. Ultimately, the sewage flow would be conveyed to the HWRP, which has sufficient capacity for the Proposed Project. As the Proposed Project would make all necessary improvements and would have a negligible impact on the existing sewer capacity, the Proposed Project's impacts upon the City's sewer system would be less than significant.

### ***Solid Waste***

In 2017, the City of Los Angeles entered into exclusive franchise agreements with waste haulers to provide solid waste, commingled recyclables, and organics collection, transfer, disposal and processing services to commercial and multifamily establishments in the City. The companies that were awarded the contract for each franchise secured a dedicated waste stream, increasing the financial viability to develop new organic waste processing and conversion technology facilities in the vicinity of the City of Los Angeles.

The Project Site is located within the North Central Waste Franchise Zone, which is serviced under contract to Athens Services, Inc. Under the existing contract, the service provider is required to deliver solid waste resources collected to the following certified facilities: Mid-Valley Sanitary Landfill, located at 2390 N. Alder Avenue; Chiquita Canyon Landfill, located at 29201 Henry Mayo Drive; San Timoteo Sanitary Landfill, located at San Timoteo Canyon Road; Victorville Sanitary Landfill, located at 18600 Stoddard Wells Road; Savage Canyon Landfill, located at 13919 E. Penn Street; Athens Industry MRF & Transfer Station, located at 11121 Pendleton Street; and Central LA Recycling & Transfer Station ("CLARTS"), located at 2201 E. Washington Boulevard.

All solid waste is initially disposed into the Athens Industry MRF & Transfer Station or CLARTS recycling and transfer facilities, located 17 miles north of the Project Site (approx. 34 miles round trip) and 10 miles southeast of the Project Site (approx. 10 miles total), respectively. Then all trash and non-recyclables materials are transferred to a landfill that accepts non-recyclable waste. It is assumed that the Proposed Project's solid waste would be disposed of at the Chiquita Canyon Landfill, located approximately 37 miles northwest of the Project Site (approx. 74 miles roundtrip). For the Chiquita Canyon Landfill, as of December 31<sup>st</sup>, 2020, it has a remaining capacity of 54.4 million tons (55.4 million cubic yards) and an estimated remaining life of 27 years.

With approximately 128,363 square feet of proposed gross building area, the Proposed Project is anticipated to generate approximately 269 tons of construction debris before source reduction and



recycling efforts. The Proposed Project would follow all applicable solid waste policies and objectives that are required by law, statute, or regulation. Under the requirements of the hauler's AB 939 Compliance Permit from the Bureau of Sanitation, all construction and demolition debris would be delivered to a Certified Construction and Demolition Waste Processing Facility. Operation of the Proposed Project is expected to generate approximately 1,163 pounds per day or approximately 212 tons per year. The Proposed Project would also comply with AB 939, AB 341, AB 1826 and City waste diversion goals, as applicable, by providing clearly marked, source-sorted receptacles to facilitate recycling. The amount of solid waste generated by the Proposed Project is estimated to be well within the available capacities of area landfills.

### ***Fire Services***

The factors that the Los Angeles Fire Department (LAFD) considers in determining whether fire protection services for a project are adequate include whether the Project: (1) is within the maximum response distance for the land uses proposed; (2) complies with emergency access requirements; (3) complies with fire-flow requirements; and (4) complies with fire hydrant placement. Pursuant to LAMC Section 57.507.3.3, the maximum response distance between a commercial land use and a LAFD station that houses an engine company is one mile or truck company is 1.5 miles. If this distance is exceeded, all structures shall be constructed with automatic fire sprinkler systems.

The Los Angeles Fire Department Station No. 61, located at 5821 W. 3<sup>rd</sup> Street, currently serves the Project Site. The fire station is located approximately 1.5 miles (driving distance) east of the Project Site. The LAFD considers fire protection services for a project adequate if a project is within the maximum response distance for the land use proposed. Based on the response distance criteria specified in LAMC 57.507.3.3, fire protection response would be considered adequate. Pursuant to LAMC Section 57.507.3.1, the required fire flow for a high-density multi-family development, such as the Proposed Project, is 6,000 gallons per minute from four adjacent fire hydrants flowing simultaneously. The Proposed Project would be required to maintain appropriate fire flow and access pursuant to the Los Angeles Fire Code. LAMC Section 57.507.3.2 addresses land use-based requirements for fire hydrant spacing and type. Additionally, every first story of a residential, commercial, and industrial building must be within 300 feet of an approved hydrant. There is an existing fire hydrant approximately adjacent to the Project Site at the intersection of 3<sup>rd</sup> Street and Flores Street. The number and location of hydrants would be determined as part of LAFD's fire/life safety plan review for the Proposed Project. The required fire flow and hydrant placement for the Proposed Project would be confirmed in consultation with the LAFD during the plan check approval process.

Local access to the Project Site is provided via 3<sup>rd</sup> Street, Flores Street, and the northern alleyway; and direct access to the Project Site would be provided from one full-access driveway from the adjacent alleyway. The Proposed Project driveway would be designed according to LADOT standards to ensure adequate access, including emergency access, to the Project Site. Furthermore, the drivers of emergency vehicles normally have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic. As

such, existing emergency access to the Project Site and surrounding uses would be maintained during operation of the Proposed Project. The Proposed Project would not involve activities during its operational phase that could impede public access or travel upon a public right-of-way or would interfere with an adopted emergency response or evacuation plan. Therefore, development of the Proposed Project is not expected to significantly impact fire protection services in the Project area.

### ***Police Services***

For the purpose of this analysis, a significant impact may occur if the Los Angeles Police Department (LAPD) could not adequately serve a project, necessitating a new or physically altered station, the construction of which may cause significant environmental impacts. The determination of whether a project results in a significant impact on police protection shall be made considering the following factors: (a) the population increase resulting from the project, based on the net increase of residential units or square footage of non-residential floor area; (b) the demand for police services anticipated at the time of project buildout compared to the expected level of service available, considering, as applicable, scheduled improvements to LAPD services (facilities, equipment, and officers) and the project's proportional contribution to the demand; and (c) whether the project includes security and/or design features that would reduce the demand for police services.

The Project Site is located in the Wilshire Division of the Los Angeles Police Department's West Bureau. The Wilshire Community Police Station, located at 4861 W. Venice Boulevard, serves the Project Site. This police station is located approximately 3 miles (driving distance) southeast of the Project Site. The Project Site is located within Reporting District 722.

Operation of the Proposed Project would result in an increase of residents, guests, and employees at the Project Site, thereby generating a potential increase in the number of service calls from the Project Site. Responses to thefts, vehicle burglaries, vehicle damage, and traffic-related incidents would be anticipated to escalate as a result of the increased on-site activity and increased traffic on adjacent streets. The plans for the Proposed Project would incorporate adequate crime prevention design features that would provide security design measures for semi-public and private spaces, which may include, but not be limited to, surveillance cameras, access control to the building, secured parking facilities, walls/fences with key systems, well-illuminated public and semi-public spaces designed with a minimum of dead space to eliminate areas of concealment, and location of building entrances in high-foot traffic areas. The Proposed Project would be subject to review by the LAPD for compliance with the recommended site design guidelines to improve public safety. Thus, development of the Proposed Project would not significantly impact police protection services in the Project area.

### ***Los Angeles Unified School District***

The Project Site is located within the service area of the Los Angeles Unified School District (LAUSD). The Project Site is currently served by one elementary school, one middle school, and one high school. The following schools serve the Project Site:

- 1) Rosewood Avenue Elementary School, located at 503 N. Croft Avenue, approximately 0.7 miles north of the Project Site;
- 2) John Burroughs Middle School, located at 600 S. McCadden Place, approximately 2.3 miles east of the Project Site; and
- 3) Fairfax Senior High School, located at 7850 Melrose Avenue, approximately 1.4 miles northeast of the Project Site.

Based on LAUSD employment generation rates for residential developments, the Proposed Project would generate approximately 15 elementary students, 5 middle school students, 8 high school students, and 1 special day class student for a total of approximately 29 students.<sup>9</sup> Based on LAUSD employment generation rates for commercial developments, the Proposed Project would generate 4 new students.<sup>10</sup> Collectively, the Proposed Project's residential and commercial components would generate approximately 33 new students. The Project Applicant would be required to pay all applicable developer fees to the LAUSD to offset the Proposed Project's demands upon local schools. Prior to issuance of a building permit, the General Manager of the City of Los Angeles, Department of Building and Safety, or designee, shall ensure that the Applicant has paid all applicable school facility development fees in accordance with California Government Code Section 65995. Pursuant to Government Code Section 65995, payment of development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation." With the payment of a School Development Fee, the Proposed Project's potential impact upon public school services would be less than significant.

### **Parks**

The Proposed Project would result in a net increase of 77 multi-family dwelling units and 173 residents,<sup>11</sup> which would have the potential to increase demands upon public park facilities. The Project Site is served by parks and recreation facilities, which are owned and maintained by the City of Los Angeles Recreation and Parks Department. Parks and recreation facilities within a two-mile radius of the Project Site include: Carthay Circle Park, Fairfax Senior Citizen Center, Pan Pacific Park and Recreation Center, Renee's Place, Pan Pacific Senior Center and Pool, William S. Hart Park, Poinsettia Recreation Center, Robertson Recreation Center, and Claude Pepper Senior Citizen Center.<sup>12</sup>

In addition, the Proposed Project would provide a total of 2,188 square feet of common and private open space that would be available exclusively to serve the Proposed Project's residents and their

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<sup>9</sup> Student generation rates are as follows for multi-family residential uses: 0.1953 elementary, 0.0538 middle and 0.1071 high school students, and 0.0148 SDC (special day class) students per unit. Source: Los Angeles Unified School District, 2022 Developer Fee Justification Study, Table 15, March 2022.

<sup>10</sup> Estimated student generation based on 0.1724 students are generated per commercial employee (Source: Los Angeles Unified School District, 2022 Developer Fee Justification Study, Table 15, March 2022). Estimated new employees based on two employees per 1,000 square feet of retail space per employee (Source: LADOT, City of Los Angeles VMT Calculator Documentation, Version 1.3, May 2020).

<sup>11</sup> Residential population generation rates are approximately 2.25 persons per dwelling unit, as according to the LADOT's City of Los Angeles VMT Calculator Documentation, Table 1: Land Use and Trip Generation Base Assumption.

<sup>12</sup> City of Los Angeles, Department of Recreation and Parks, Facility Map Locator, <https://www.laparks.org/maplocator>, accessed May 2023.

guests, which would reduce the Project's demand upon public parks and recreational facilities. The Proposed Project's demand for open space would be met through a combination of (1) on-site open space proposed within the Project Site, (2) payment of applicable taxes in accordance with LAMC Section 21.10.3(a)(1), and (3) the availability of existing park and recreation facilities within the area. The Proposed Project would pay all required park and recreation fees, as required by the LAMC. Development of the Proposed Project is therefore not expected to significantly impact park and recreation facilities in the Project area.

### ***Libraries***

The Los Angeles Public Libraries (LAPL) branch currently serving the Project Site includes the Fairfax Branch Library, located at 161 S. Gardner Street, approximately 1.1 miles east of the Project Site.<sup>13</sup> Existing library services are expected to adequately serve the needs of future occupants of the Proposed Project. The LAPL Branch Facilities Plan (the Plan), adopted in 1988, sets standards for site selection of libraries and identified a list of projects in which existing branch libraries are to be renovated or new facilities constructed in order to bring library resources to the residents of the City in accordance with the standards in the Plan. The goals of the Plan were implemented with money received by two bond programs: Phase I of the Plan was implemented with funds from the 1989 Bond Program and Phase II by the 1998 Bond Program. Under the two bond programs, 64 library facilities have been renovated or built. As of October 2008, all of the projects identified under the Plan have been completed. At present, the Plan is going through a process of revision in which the list of projects for the LAPL through the year 2030 will be updated. There are no planned improvements to add capacity through expansion or development of new libraries in the Project area. However, the Proposed Project would generate revenues for the City's General Fund (in the form of property taxes, sales tax revenue, etc.) that could be applied toward the provision of library facilities, staffing, and materials, as deemed appropriate. The Proposed Project's contribution to the General Fund would help offset the Project-related increase in demand for library services. Further, the Proposed Project would not conflict with or impede implementation of the applicable policies and goals related to libraries in the General Plan Framework or Wilshire Community Plan. Moreover, the Proposed Project would not be anticipated to result in a substantial increase in demand that would necessitate new or physically altered facilities, the construction of which could cause environmental impacts. Therefore, the Proposed Project's impacts upon library services would be considered less than significant.

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<sup>13</sup> *City of Los Angeles, Los Angeles Public Library, Locations and Hours, <https://www.lapl.org/branches>, accessed May 2023.*

## Section 4. Exceptions to Categorical Exemptions

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In addition to the above qualifying criteria, there are exceptions to the exemptions depending on the nature or location of a project, or unusual circumstances that create the reasonable possibility of significant effects. As provided in CEQA Section 15300.2, for a proposed project to qualify for an exemption to CEQA, the project must be able to demonstrate that it does not fall under the following exceptions:

- (a) Location.** Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located - a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.
- (b) Cumulative Impact.** All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.
- (c) Significant Effect.** A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.
- (d) Scenic Highways.** A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.
- (e) Hazardous Waste Sites.** A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.
- (f) Historical Resources.** A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

### **(a) Location**

The Proposed Project does not qualify for a Class 3, 4, 5, 6, or 11 Categorical Exemption. As discussed herein, the Proposed Project qualifies under the Class 32 Categorical Exemption – “In-fill Development Projects.” Therefore, this exception does not apply to the Proposed Project.

### **(b) Cumulative Impacts**

Provided below are the individual analyses of the cumulative impacts from traffic, noise, air quality, water quality, public services, and public utilities. In accordance with CEQA Guidelines Section 15300.2, this Categorical Exemption includes an evaluation of the Proposed Project’s cumulative impacts to rule out the exception of cumulative impacts under Section 15300.2(b). Section

15300.2(b), Cumulative Impact, states that: “All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.”

In determining the cumulative impacts, the guidance provided under CEQA Guidelines Section 15064(h) is as follows:

*“(1) When assessing whether a cumulative effect requires an EIR, the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable. An EIR must be prepared if the cumulative impact may be significant and the project’s incremental effect, though individually limited, is cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.*

*(2) A lead agency may determine in an initial study that a project’s contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. When a project might contribute to a significant cumulative impact, but the contribution will be rendered less than cumulatively considerable through mitigation measures set forth in a mitigated negative declaration, the initial study shall briefly indicate and explain how the contribution has been rendered less than cumulatively considerable.*

*(3) A lead agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including, but not limited to, water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, plans or regulations for the reduction of greenhouse gas emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. When relying on a plan, regulation or program, the lead agency should explain how implementing the particular requirements in the plan, regulation or program ensure that the project’s incremental contribution to the cumulative effect is not cumulatively considerable. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding that the project complies with the specified plan or mitigation program addressing the cumulative problem, an EIR must be prepared for the project.*

*(4) The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable.”*

In light of the guidance summarized above, an adequate discussion of a project’s significant cumulative impact, in combination with other closely related projects, can be based on either: (1)

a list of past, present, and probable future producing related impacts; or (2) a summary of projections contained in an adopted local, regional, statewide plan, or related planning document that describes conditions contributing to the cumulative effect. (CEQA Guidelines Section 15130(b)(1)(A)-(B)). The lead agency may also blend the “list” and “plan” approaches to analyze the severity of impacts and their likelihood of occurrence. Accordingly, all proposed, recently approved, under construction, or reasonably foreseeable projects that could produce a related or cumulative impact on the local environment, when considered in conjunction with the Proposed Project, were identified for evaluation.

To assess local cumulative impacts of nearby related projects collectively with the Proposed Project, a search of proposed related projects was conducted within a ½-mile radius of the Project Site. Eight related projects were identified within ½-mile radius of the Project Site (see Table 17, Related Projects List, and Figure 12, Related Projects Map). This document analyzes the Proposed Project impacts to determine whether the Proposed Project is cumulatively considerable when assessing cumulative impacts with the related project and potential related projects located further from the Project Site and vicinity.

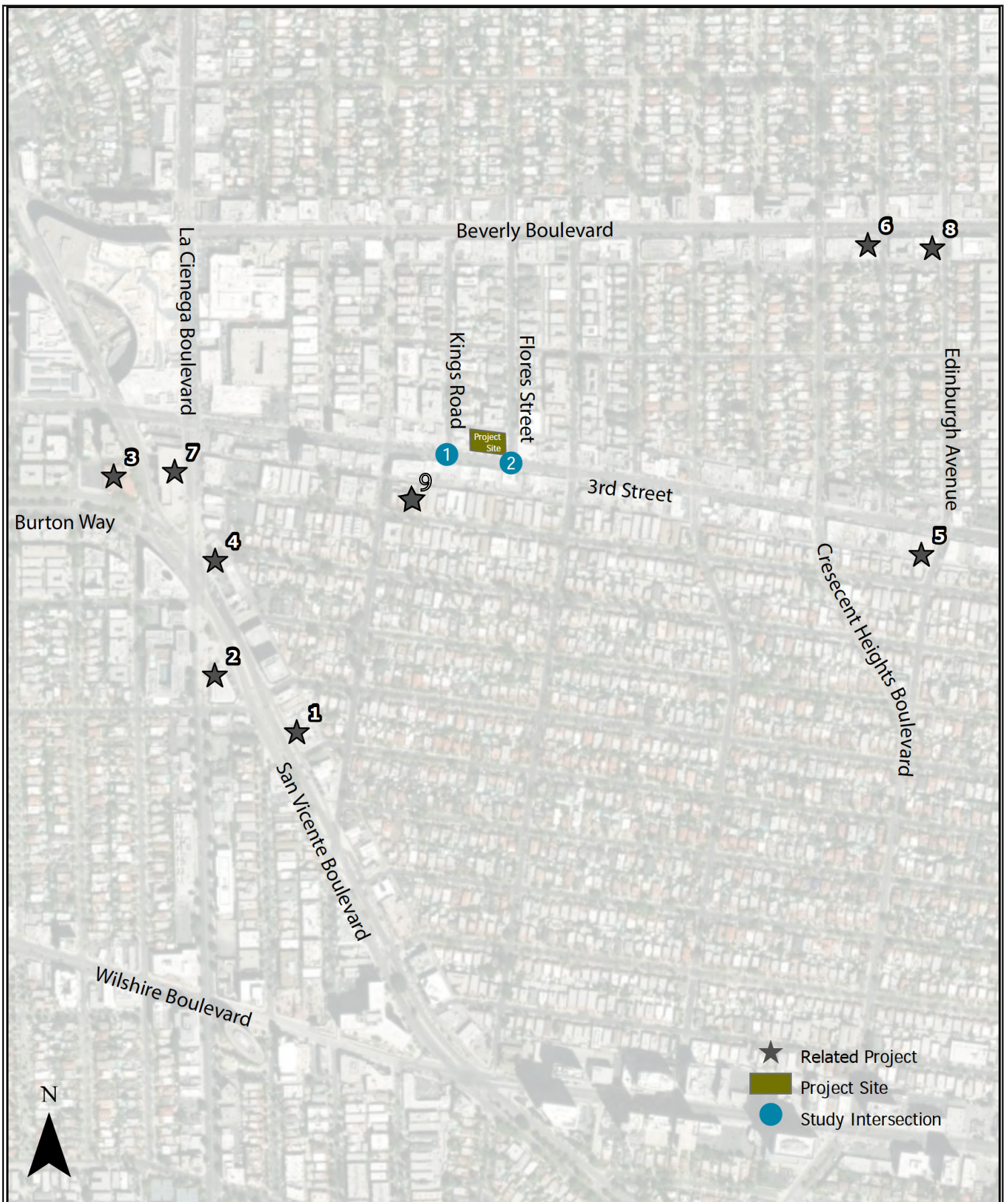
**Table 17  
Related Projects List**

Project No.	Location/Address	Project Description	Size	Units
1	488 S. San Vicente Blvd.	Multi-family Housing Retail	53 6.585	du ksf
2	316 N. La Cienega Blvd.	Multi-family Housing Affordable Housing Retail	56 5 4.097	du du ksf
3	333 S. San Vicente Blvd.	Multi-family Housing Affordable Housing Church Office Remodel	153 17 31.439	du du ksf
4	400 S. San Vicente Blvd.	Multi-family Housing Affordable Housing Restaurant	113 14 11.275	du du ksf
5	8000 W.3 <sup>rd</sup> St.	Multi-family Housing Other Housing Retail	45 5 6.252	du du ksf
6	8052 W. Beverly Blvd.	Synagogue Multi-family Housing Medical Office Retail	5 102 15.000 1.000	du du ksf ksf
7	333 S. La Cienega Blvd.	Multi-family Housing Supermarket Restaurant	145 27.685 3.370	du ksf ksf
8	8000 W. Beverly Blvd.	Multi-family Housing Retail	48 7.400	du ksf
9 <sup>a</sup>	8377 Blackburn Avenue	Multi-family Housing	28	du

Notes: du = dwelling unit, sf = square feet, rm = room

<sup>a</sup> No City case number was assigned for this project, since this Related Project was approved by LADBS as a by-right project. Thus, no discretionary actions nor CEQA review were required for this project. This Related Project is almost fully constructed and pending its certificated of occupancy.

Source: (1) City of Los Angeles, Case Reports and Mapping Interactive Map, Bi-Weekly Case Filings, website: <https://planning.lacity.org/resources/case-reports>, accessed July 2023; and (2) KOA Corporation, Transportation Assessment, 8339 W. 3<sup>rd</sup> Street Mixed-Use Project, July 12, 2023.



Source: KOA Corporation, July 2023.

Figure 12  
Location of Related Projects



*Cumulative Traffic Impacts*

*Cumulative Consistency with Plans, Programs, Ordinances, and Policies*

Pursuant to the TAG, each of the plans, programs, ordinances, and policies to assess potential conflicts with proposed projects should be reviewed to assess cumulative impacts that may result from the Proposed Project in combination with other nearby development projects. A cumulative impact could occur if the Proposed Project, with other future development projects located on the same block were to cumulatively preclude the City’s ability to serve transportation user needs as defined by the City’s transportation policy framework. No related projects are located within the same block as the Proposed Project. Since the related projects would be individually responsible for complying with the City’s transportation plans, programs ordinances and policies, no cumulative impacts to the Mobility Element 2035 goals that define the development of the Citywide transportation infrastructure would occur.

*Cumulative VMT Consistency Check*

Cumulative VMT impacts are evaluated through a consistency check with SCAG’s RTP/SCS. The RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and GHG reduction targets. Per the City’s TAG, projects that are consistent with the RTP/SCS plan in terms of development location and density are part of the regional solution for meeting air pollution and GHG goals. Projects that have less than a significant VMT impact are deemed to be consistent with the SCAG’s RTP/SCS and would have a less-than-significant cumulative impact on VMT.

As mentioned above in Condition (d), above, the Proposed Project is not expected to have a significant VMT impact based on its household VMT per capita. In addition, per guidance from the TAG, as a project with less-than-significant household VMT per capita and work VMT per employee impacts the Proposed Project can be assumed not to have a cumulative impact related to VMT. Additionally, all subsequent related projects would be individually evaluated, and any potential traffic impacts would be mitigated, if necessary. Therefore, the Proposed Project’s cumulative transportation impact, in connection with other related projects, is considered less than significant.

*Cumulative Noise Impacts*

Development of the Proposed Project in conjunction with the eight related projects could result in an increase in construction-related and traffic-related noise as well as on-site stationary noise sources in the already urbanized area of the City of Los Angeles. Localized construction impacts associated with noise generally occur within an area of 500 feet or less of the Project Site. Any projects located beyond 500 feet of the Project Site are farther than the distance that noise would generally travel in an urban area; and therefore, would not contribute to cumulative construction noise impacts. There are no related projects within 500 feet of the Project Site. Therefore, it is unlikely that the eight identified related projects would result in cumulative construction noise impacts with the Proposed Project. Similar to the Proposed Project, related projects would be

required to comply with the City's noise ordinance, as well as implement mitigation measures or project design features that may be prescribed pursuant to CEQA provisions that require potentially significant impacts to be reduced to the maximum extent feasible. Construction noise for the Proposed Project and each related project (that has not yet been built) would be localized. Thus, the cumulative impact associated with construction noise would be less than significant, and the Proposed Project's incremental effects would not be cumulatively considerable.

With respect to cumulative operational noise impacts, each of the related projects would be required to comply with LAMC Section 112.02, which prohibits noise from air conditioning, refrigeration, heating, pumping, and filtering equipment from exceeding the ambient noise level on the premises of other occupied properties by more than five decibels. Thus, the siting and development of related projects would be subject to further CEQA review and evaluated on a case-by-case basis, and cumulative operational noise would be less than significant.

### *Cumulative Air Quality Impacts*

Development of the Proposed Project in conjunction with related projects in the Project Site vicinity would result in an increase in construction and operational emissions in the already urbanized area of the Wilshire community of the City of Los Angeles. Cumulative air quality impacts from construction and operation of the Proposed Project, based on SCAQMD guidelines, are analyzed in a manner similar to Project-specific air quality impacts. The SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project specific impacts. Therefore, according to the SCAQMD, individual development projects that generate construction or operational emissions that exceed the SCAQMD recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in non-attainment. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.<sup>14</sup>

Thus, as discussed above, because the construction-related and operational daily emissions associated with Proposed Project would not exceed the SCAQMD's recommended thresholds, these emissions associated with the Proposed Project would not be cumulatively considerable. Further, each related project would quantify and address air quality emissions and mitigate impacts, if necessary, to ensure no cumulative impacts would occur. Furthermore, estimated emissions from similar projects of this size and type are typically well below SCAQMD thresholds and that multiple projects, when viewed together, are unlikely to exceed SCAQMD's regional thresholds. Therefore, cumulative air quality impacts would be less than significant.

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<sup>14</sup> SCAQMD, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. Appendix D, August 2003 (at page D-3)*, website: <https://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4>, accessed March 2023.

### *Cumulative Greenhouse Gas Emissions Impacts*

As stated previously in the Greenhouse Gas Emissions section of the supporting analysis above, the guidance from the State and City on Class 32 Categorical Exemptions does not require the preparation of GHG analyses for projects eligible for exemptions. Specifically, Article 19 of the State's CEQA Guidelines states that eligible projects that qualify for categorical exemptions are deemed to not have a significant effect on the environment. Under Section 15332, the Class 32 exemption that governs in-fill development projects identifies the conditions under which a project can qualify, noting that "[a]pproval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality..." There are no requirements to making findings about a project's effects on GHG. Further, the City issued guidance in 2018 (CP-7828) that clarifies the special requirement criteria for projects that seek to use the Class 32 exemption. In this guidance, they clarify that projects that qualify must provide supporting documents to demonstrate eligibility for the Class 32 exemption, including an air quality study. However, the "[p]urpose of this assessment is to evaluate the regional significance of criteria pollutant emissions from both the construction and operation of a proposed project." An assessment of criteria air pollutant emissions and cumulative impacts have been prepared, as described herein. As there is no requirement for preparation of cumulative GHG analyses to validate the Class 32 exemption, the following cumulative analysis is provided for informational purposes only.

The GHG emissions from a mixed-use residential and commercial development is relatively very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change, which can cause the adverse environmental effects previously discussed. Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project.

SCAG's 2020-2045 RTP/SCS, adopted in September 2020, is the regional plan that demonstrates compliance with air quality conformity requirements and GHG reduction targets. As such, projects and land use plans that are consistent with this plan in terms of development location, density, and intensity, are part of the regional solution for meeting air pollution and GHG reduction goals. Planning for more housing and jobs near transit was a strategy incorporated in SCAG's first RTP/SCS in 2012 and carried forward in the 2016 and 2020 RTP/SCS with a focus on areas that are well served by transit. The Proposed Project is an infill development in a Transit Priority Area and would be designed with sustainability features that are aimed at reducing overall GHG emissions.

The Proposed Project would also not conflict with all applicable local ordinances, regulations, and policies that have been adopted in furtherance of the state and City's goals of reducing GHG emissions. The Proposed Project would comply with the building efficiency standards of the California's Energy Efficiency Standards for Residential and Nonresidential Buildings, located at

Title 24, Part 6 of the California Code of Regulations. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standards. Additionally, the Proposed Project would comply with the L.A. Green Building Code, which imposes more stringent green building requirements than those contained within the CALGreen Code and is applicable to the construction of every new building, every new building alteration with a permit valuation of over \$200,000, and every building addition unless otherwise noted. As such, any subsequent cumulative projects of a similar scale or nature would also be required to comply with applicable Title 24 Building Efficiency Standards, the L.A. Green Building Code, and incorporate GHG reducing measures as required. Thus, the Proposed Project would not make a cumulatively considerable contribution to GHG emissions and impacts would be less than significant.

#### *Cumulative Water Quality Impacts*

Development of the Proposed Project in combination with related projects would result in the further infilling of uses in a highly developed area within the Wilshire community in the City of Los Angeles. As discussed above, the Project Site and the surrounding areas are served by the existing City or County storm drain system. Runoff from the Project Site and adjacent urban uses is typically directed into the adjacent streets, where it flows to the nearest stormwater drainage inlet. It is likely that most, if not all, related projects would also drain to the surrounding street system. However, little if any additional cumulative runoff is expected from the Proposed Project and the related project sites, since the surrounding area is highly developed with impervious surfaces. The surrounding area has long been developed and is heavily urbanized and improved with various residential and commercial buildings; thus, subsequent projects are not likely to result in a significant change from existing conditions with regards to runoff quantity. Nonetheless, under the requirements of Article 4.4 of the LAMC, each related project would be required to implement stormwater BMPs to retain or treat the runoff from a storm event producing 3/4-inch of rainfall in a 24-hour period or the rainfall from an 85<sup>th</sup> percentile 24-hour runoff event, whichever is greater. Mandatory structural BMPs in accordance with the NPDES water quality program would result in a cumulative reduction of surface water runoff, as the development in the surrounding area is limited to infill developments and redevelopment of existing urbanized areas. Therefore, cumulative water quality impacts would be less than significant.

#### *Cumulative Water Demand Impacts*

Development of the Proposed Project and related projects and the cumulative growth throughout the City of Los Angeles, would further increase the demand for potable water within the City. Through the 2020 UWMP, the LADWP has demonstrated that it can provide adequate water supplies for the City through the year 2045, with implementation of conservation strategies and proper supply management. This estimate is based in part on demographic projections obtained for the LADWP service area from the Metropolitan Water District (MWD). The MWD utilizes a land-use based planning tool that allocates projected demographic data from the Southern California Association of Governments (SCAG) into water service areas for each of MWD's member

agencies. MWD's demographic projections use data reported in SCAG's RTP/SCS and account for estimated increases in population (and by association the development of subsequent projects) in the surrounding area. The Proposed Project's contributions to population and housing growth that would be consistent with SCAG's growth projections for the City of Los Angeles. As such, the additional water demands generated by the Proposed Project are accounted for in the 2020 UWMP. Additionally, the Proposed Project's growth is consistent with SCAG's growth projections for the Los Angeles subregion. With approval of the requested discretionary actions, the Proposed Project is consistent with the underlying allowable uses per the LAMC and would not exceed the allowable density for the Project Site or exceed the available capacity in the local aqueduct. As such, the additional water demands generated by the Proposed Project are accounted for in the 2020 UWMP, and cumulative impacts associated with increased water demand would be less than significant.

#### *Cumulative Sewer Impacts*

Development of the Proposed Project in conjunction with related projects would further increase regional demands on HWRP's capacity. Similar to the Proposed Project, each related project would be required to submit a SCAR and obtain approval by the Department of Public Works to ensure adequate sewer capacity for each related project. Since the Proposed Project would require approval from L.A. Sanitation and Environment, signifying that the sewer lines serving the Project Site have adequate capacity, the Proposed Project would not be expected to contribute to a local cumulative impact. Locally, the Proposed Project would not be cumulatively considerable. The impact of the continued growth of the region would likely have the effect of diminishing the daily excess capacity of the HWRP's service to the City of Los Angeles and surrounding area. However, it is anticipated that the 175 mgd of available capacity in the HWRP would not be significantly reduced with the cumulative wastewater generation from the related projects and Proposed Project. As such, cumulative impacts with respect to wastewater demand would be less than significant.

#### *Cumulative Solid Waste Impacts*

The City of Los Angeles Solid Waste Management Plan (AB 939) sets forth strategies that would provide adequate landfill capacity through 2037 to accommodate anticipated growth. The Bureau of Sanitation has projected the need for waste disposal capacity based on SCAG's regional population growth projections. The growth associated with the Proposed Project is within those projections. Further, new programs are being implemented to increase the amount of waste diverted by the City, including multi-family recycling, food waste recycling, commercial recycling and technical assistance and support for City departments to help meet their waste reduction and recycling goals. The City is also developing programs to ultimately meet a goal of zero waste by 2030. Thus, the Proposed Project's contribution to cumulative impacts would continue to decrease as it increases waste diversion rates in accordance with City goals.

Development of the Proposed Project in conjunction with related projects would further increase regional demands on landfill capacity. The impact of the continued growth of the region would likely

have the effect of diminishing the daily excess capacity of the existing landfills serving the City of Los Angeles. Although there are several proposals for new landfills in the region, there are currently few viable options for City of Los Angeles waste past 2035. The cumulative operational solid waste generation of the related projects and Proposed Project would represent a small fraction of the remaining capacity of the Chiquita Canyon Landfill, which currently has a remaining permitted capacity of approximately 54.4 million tons. Therefore, the cumulative impacts with respect to solid waste would be less than significant.

#### *Cumulative Impacts to Fire Services*

The Proposed Project, in combination with related projects, could increase the demand for fire protection services in the Project area. Specifically, there could be increased demands for additional LAFD staffing, equipment, and facilities over time. This need would be funded via existing mechanisms (e.g., property taxes, government funding, and developer fees) to which the Proposed Project and related projects would contribute. Similar to the Proposed Project, each of the related projects would be individually subject to LAFD review and would be required to comply with all applicable fire safety requirements of the LAFD in order to adequately mitigate fire protection impacts. Specifically, any related project that exceeded the applicable response distance standards would be required to install automatic fire sprinkler systems in order to mitigate the additional response distance. To the extent cumulative development causes the need for additional fire stations to be built throughout the City, the development of such stations would be on small infill lots within existing developed areas and would not likely cause a significant impact upon the environment. Nevertheless, the siting and development of any new fire stations would be subject to further CEQA review and evaluated on a case-by-case basis. However, as the LAFD does not currently have any plans for new fire stations to be developed in proximity to the Project Site, no impacts are currently anticipated to occur. On this basis, the Proposed Project would not make a cumulatively considerable impact to fire protection services, and, as such cumulative impacts on fire protection would be less than significant.

#### *Cumulative Impacts to Police Services*

The Proposed Project, in combination with related projects, would increase the demand for police protection services in the Project area. Specifically, there would be an increased demand for additional LAPD staffing, equipment, and facilities over time. This need would be funded via existing mechanisms (e.g., sales taxes, government funding, and developer fees), to which the Proposed Project and related projects would contribute. In addition, related projects would be individually subject to LAPD review and would be required to comply with all applicable safety requirements of the LAPD and the City of Los Angeles in order to adequately address police protection service demands. Furthermore, related projects would likely install and/or incorporate adequate crime prevention design features in consultation with the LAPD, as necessary, to further decrease the demand for police protection services. To the extent cumulative development causes the need for additional police stations to be built throughout the City, the development of such stations would be on small infill lots within existing developed areas and would not likely cause a significant impact upon the environment. Nevertheless, the siting and development of any new

police stations would be subject to further CEQA review and evaluated on a case-by-case basis. However, as the LAPD does not currently have any plans for new police stations to be developed in proximity to the Project Site. No impacts are currently anticipated to occur. On this basis, the Proposed Project would not make a cumulatively considerable impact to police protection services, and cumulative impacts on police protection would be less than significant.

#### *Cumulative Impacts to Schools*

The Proposed Project, in combination with related projects is expected to result in a cumulative increase in the demand for school services. Development of the related projects would likely generate additional demands upon school services. Related projects would have the potential to generate students that would attend the same schools as the Proposed Project. This would create an increased cumulative demand on local school districts. However, each related project would be responsible for paying applicable school fees to mitigate the increased demand for school services. Pursuant to Government Code Section 65995, payment of development fees authorized by SB 50 are deemed to be “full and complete school facilities mitigation.” With payment of the School Development Fee, any future school infrastructure would be developed as needed, and thus the cumulative impacts on schools from the Proposed Project and any subsequent project would be less than significant.

#### *Cumulative Impacts to Parks*

Development of the Proposed Project in conjunction with related projects could result in an increase in permanent residents residing in the greater Project area. Additional cumulative development would contribute to lowering the City’s existing parkland to population ratio, which is currently below the preferred standard. However, any residential related projects are required to comply with payment of Quimby Fees (for subdivision projects with greater than 50 units) and/or park and recreation mitigation fees (for all other residential projects). Each residential related project would also be required to comply with the on-site open space requirements of the LAMC. Therefore, with payment of the applicable recreation fees on a project-by-project basis, any future park infrastructure would be developed as needed; therefore, the Proposed Project would not make a cumulatively considerable impact to parks and recreational facilities, and cumulative impacts would be less than significant.

#### *Cumulative Impacts to Libraries*

Development of related projects is projected to generate additional housing and residents within the study area, which would likely generate additional demands upon library services. This increase in resident population would result in a cumulative increase in demands upon public library services. To meet the increased demands upon the City’s Public Library system, Los Angeles voters passed a Library Bond Issue for \$178.3 million to improve, renovate, expand, and construct 32 branch libraries. Since the Program’s inception in 1998, the Library Department and the Department of Public Works, Bureau of Engineering have made considerable progress in the design and construction of the branch library facilities. Based on the growth forecasts utilized in

the 2015-2020 Strategic Plan, much of this growth has already been accounted for in planning new and expanded library facilities. Additionally, any future growth and development would analyze potential impacts on library services, and future library infrastructure would be developed, as needed. Thus, the additional residents generated by the Proposed Project would not make a cumulatively considerable impact upon the City's library system. Therefore, the cumulative impacts related to library facilities would be less than significant.

*Cumulative Impacts Summary (Class 32)*

As presented in the analysis above, the Proposed Project would not result in any significant impacts from traffic, noise, air quality, water quality, public services, and public utilities. The Proposed Project would be consistent with the use, type, and density of projects that are permitted by right and otherwise anticipated by the zoning code and General Plan, and when viewed in conjunction with other proposed, approved, or reasonably anticipated projects, would not generate impacts that are cumulatively considerable. Thus, the potential for the Proposed Project to result in cumulative impacts is less than significant, and this exception does not apply.

**(c) Significant Effect**

There are no unusual circumstances that exist in connection with the Proposed Project or surrounding environmental conditions. The Project Site is located in an urbanized area of the Wilshire Community Plan Area and is consistent with the existing physical arrangement of the properties within the vicinity of the Project Site. The zoning designation for the Project Site is C2-VL-1 with a General Plan land use designation of Neighborhood Office Commercial. The Proposed Project is consistent with the designated zoning with respect to allowable uses and would comply with all applicable provisions of the LAMC, with approval of its discretionary requests. As such, there are no unique or unusual circumstances that exist in connection with the Proposed Project or surrounding environmental conditions that have the potential to result in a significant environmental impact upon the environment.

The Project Site is located in close proximity to significant transit infrastructure. The Proposed Project is located within a defined Transit Priority Area under Senate Bill 743 and City of Los Angeles Zoning Information File No. 2452. Pursuant to P.R.C. Section 21099(d)(1), parking and aesthetic impacts of infill development projects in TPAs shall be considered less than significant as a matter of law. Thus, the Proposed Project is consistent with the type of development desired in this transit rich location as a matter of both State and local policy.

While no unusual circumstances exist, as described above, there is also not a reasonable possibility that any significant effects could result from development of the Proposed Project. Specifically, the Proposed Project would not result in any significant impacts related to traffic, noise, air quality, water quality, public services, and/or utilities. As such, this exception does not apply.



**(d) Scenic Resources**

The Project Site is not bordered by or within the viewshed of any designated scenic highway as identified in the Mobility Element of the City of Los Angeles General Plan or a State scenic highway as identified by the Department of Transportation.<sup>15</sup> The closest designated State scenic highway is the Topanga Canyon State Scenic Highway, State Route 27, which is located approximately 22 miles northwest of the Project Site. The Proposed Project fronts 3<sup>rd</sup> Street and Flores Street, which are not designated as scenic highways in the City's Mobility Plan. The Project Site is currently vacant. There are no protected trees, historic resources, or unique geologic features located on the Project Site. Therefore, the Proposed Project would not damage any scenic resources within an officially designated scenic highway, and this exception does not apply.

**(e) Hazardous Materials**

Pursuant to Government Code Section 65962.5, the Department of Toxic Substances Control (DTSC) shall compile and update as appropriate, at least annually, a list of all hazardous waste facilities subject to corrective action (pursuant to Section 25187.5 of the Health and Safety Code), all land designated as hazardous waste property or border zone property (pursuant to Section 25220 of the Health and Safety Code), all information received by the DTSC on hazardous waste disposals on public land (pursuant to Section 25242 of the Health and Safety Code), and all site listed pursuant to Section 25356 of the Health and Safety Code. Based on a review of the DTSC EnviroStor Database, the Project Site is not listed for cleanup, permitting, or investigation of any hazardous waste contamination (see Attachment 1, Figure 3 DTSC EnviroStor Database Map). Therefore, the Project Site is not located on a site that the DTSC and the Secretary of the Environmental Protection have identified as being affected by hazardous wastes or clean-up problems. Pursuant to Government Code section 65962.5, the Project Site is not listed on any national, state, and local environmental databases for cleanup, permitting, or investigation of any hazardous waste contamination, and this exception does not apply.

**(f) Historic Resources**

A substantial adverse change in the significance of a historic resource means demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. The Los Angeles Historic Resources Inventory (Historic Places LA) is the City's online database of designated historic resources and undesignated places of historical significance.

The Project Site is currently vacant. The Project Site was previously developed with a private school, the Institute of Jewish Education. According to the Los Angeles Historic Resources Inventory and Survey LA, the Citywide historic resource survey, this building appears eligible as

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<sup>15</sup> California Scenic Highway Mapping Systems: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>, accessed May 2023.

an individual property in the National Register, California Register, and for local listing.<sup>16</sup> Survey LA describes the building as “significant as a preschool associated with the Jewish community in the Wilshire area, established in the postwar period to serve the growing Jewish population of western Los Angeles.” The building was built in 1950. However, this property was approved for a demolition permit by the Department of Building and Safety and was demolished in 2022 by the previous owner.<sup>17</sup> The current Applicant acquired the Project Site after demolition. Therefore, the Project Site currently does not contain any historic structures or resources on site. Additionally, the Project Site is not located within a Historic Preservation Overlay Zone and is not indicated in the City’s Zoning and Information Map Access System (ZIMAS) as requiring historic preservation review.

The nearest potentially historic resource is the multi-family residential building located at 121 S. Flores Street, approximately 140 feet north of the Project Site. Findings in the Los Angeles Historic Resources Inventory show that this building is a contributing building to the Beverly Square Multi-Family Residential Historic District. The Beverly Square Multi-Family Residential Historic District includes parcels along both sides of Flores Street, south of the alley behind Beverly Boulevard and just north of 3<sup>rd</sup> Street, and along both sides of Sweetzer Avenue, south of the alley behind Beverly Boulevard to 1<sup>st</sup> Street. This potentially historic district provides an “excellent example of a Period Revival multi-family residential neighborhood in the area. Predominant styles include Minimal Traditional with American Colonial Revival and Streamline Moderne features.”<sup>18</sup> Since the Project Site does not directly abut this district and is separated by another residential building, the Proposed Project would not directly demolish, relocate, or significantly modify this multi-family residential building or its historic district or its surroundings, such that its significance would be materially impaired. Therefore, the Proposed Project will not result in a substantial adverse change to the significance of a historic resource and this exception does not apply.

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<sup>16</sup> *City of Los Angeles, Office of Historic Resources, Survey LA, Wilshire Community Plan, Individual Resources, January 26, 2015, website: [https://planning.lacity.org/odocument/a4ef4ac0-b50f-4238-a52d-cb6c739765cd/Wilshire\\_CPA\\_Individual\\_Resources\\_2.pdf](https://planning.lacity.org/odocument/a4ef4ac0-b50f-4238-a52d-cb6c739765cd/Wilshire_CPA_Individual_Resources_2.pdf), accessed May 2023.*

<sup>17</sup> *City of Los Angeles, Department of Building and Safety, Application Permit #22019-10000-04591, <https://www.ladbsservices2.lacity.org/OnlineServices/PermitReport/PcisPermitDetail?id1=22019&id2=10000&id3=04591>, accessed May 2023.*

<sup>18</sup> *City of Los Angeles, Historic Places LA, Los Angeles Historic Resources Inventory, Beverly Square Multi-Family Residential Historic District, website: <http://www.historicplacesla.org/reports/38745652-d7c2-4d7c-aa6d-30c109baf7c4>, accessed May 2023.*

## Section 5. References

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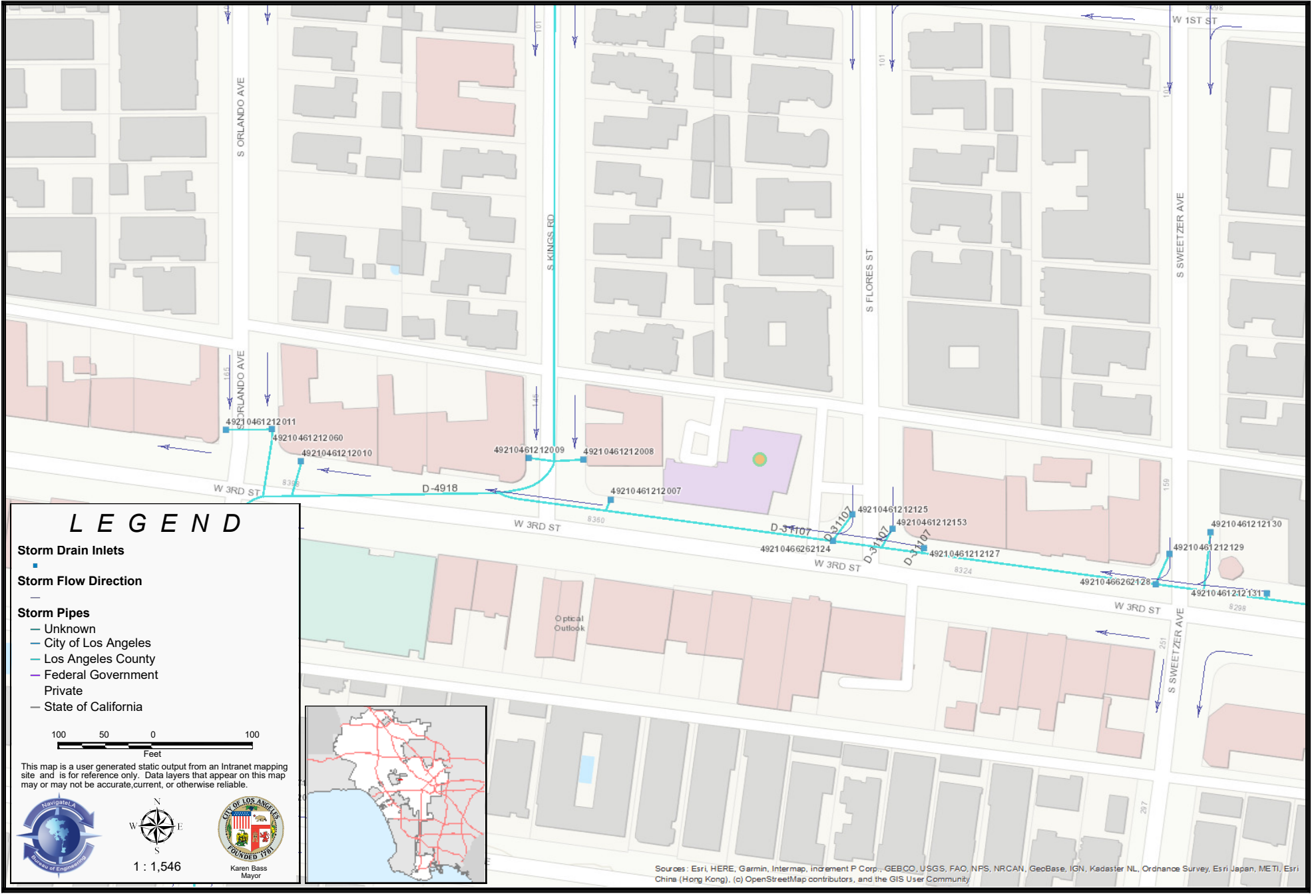
City of Los Angeles, Office of Historic Resources, Survey LA, Wilshire Community Plan, Individual resources, January 26, 2015, website: [https://planning.lacity.org/odocument/a4ef4ac0-b50f-4238-a52d-cb6c739765cd/Wilshire\\_CPA\\_Individual\\_Resources\\_2.pdf](https://planning.lacity.org/odocument/a4ef4ac0-b50f-4238-a52d-cb6c739765cd/Wilshire_CPA_Individual_Resources_2.pdf), accessed May 2023.

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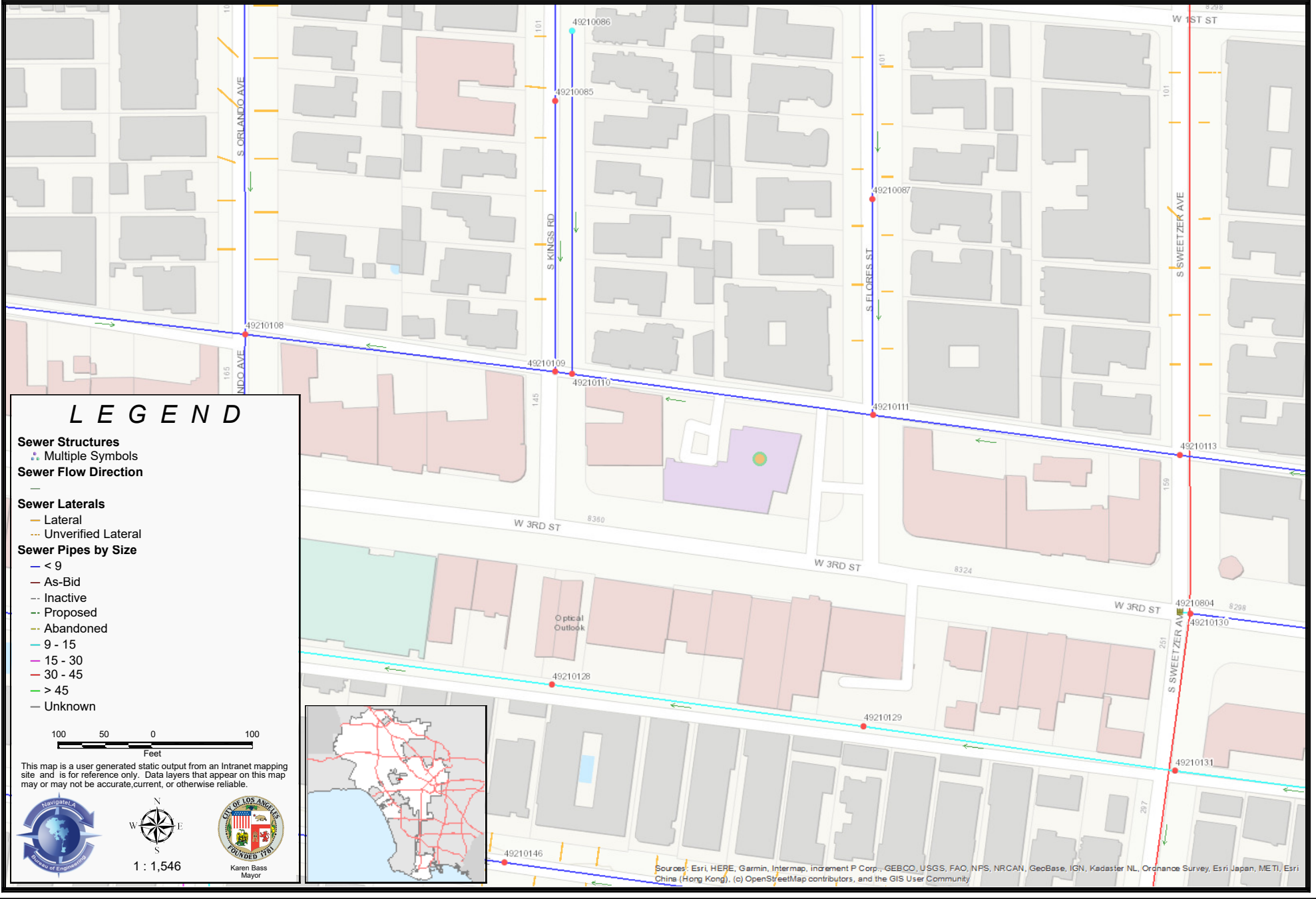
City of Los Angeles, recycLA, Personal services Contract Between the City of Los Angeles and Arakelian Enterprises, Inc. DBA Athens Services for Exclusive Franchise to Provide Collection,

**Exhibit B, Attachment 1: Additional  
Maps of the Project Site  
Case No. CPC-2023-4573-DB-CU-HCA**


# Figure 1 - Stormwater Information Map



# Figure 2 - Sewer Information Map



# Figure 3 - DTSC EnviroStor Database Map



**Sites and Facilities**

**Cleanup Sites**

- Federal Superfund
- State Response
- Voluntary Cleanup
- School Cleanup
- Evaluation
- School Investigation
- Military Evaluation
- Tiered Permit
- Corrective Action
- Field Points

**STATUS**

[All Statuses](#)

**Permitted Sites**

- Operating
- Post-Closure
- Non-Operating

**Other Sites**

- ▲ [GeoTracker LUST Cleanup](#)
- ▲ [GeoTracker Cleanup Program](#)
- ▲ [GeoTracker Military Cleanup](#)
- GeoTracker Field Points


**GIS Layers**

**Tools**

[TAKE A TOUR](#)   [SHARE THIS MAP](#)

8343 w 3rd street, los angeles

Map Address



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**SITES CURRENTLY VISIBLE ON MAP**

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
0 SITES LISTED				

[EXPORT THIS LIST TO EXCEL](#)

**Exhibit B, Attachment 2:  
Transportation Assessment  
Case No. CPC-2023-4573-DB-CU-HCA**




**CITY OF LOS ANGELES**  
INTER-DEPARTMENTAL CORRESPONDENCE

8339 W 3<sup>rd</sup> St  
DOT Case No. CEN23-55611

Date: August 24, 2023

To: Brenda Kahinju, Administrative Clerk  
Department of City Planning

From:   
Wes Pringle, Transportation Engineer  
Department of Transportation

Subject: **TRANSPORTATION ASSESSMENT FOR THE PROPOSED MIXED-USE PROJECT LOCATED AT 8339 WEST 3<sup>RD</sup> STREET (ENV-2023-4574-CE/CPC-2023-4573-DB-CU-SPR-HCA/ADM-2021-9270-TOC)**

The Los Angeles Department of Transportation (LADOT) has reviewed the transportation assessment prepared by KOA Corporation (KOA), dated July 18, 2023, for the proposed mixed-use project located at 8339 West 3<sup>rd</sup> Street (137 1-77 South Flores Street) within the Central Area Planning Commission (APC), a Transit Priority Area (TPA), and a Transit Oriented Community (TOC) Tier 1. In compliance with Senate Bill (SB) 743 and the California Environmental Quality Act (CEQA), a vehicle miles traveled (VMT) analysis is required to identify the project's ability to promote the reduction of green-house gas emissions, the access to diverse land uses, and the development of multi-modal networks. The significance of a project's impact in this regard is measured against the VMT thresholds established in LADOT's Transportation Assessment Guidelines (TAG), as described below.

#### **DISCUSSION AND FINDINGS**

A. Project Description

The project proposes to construct a mixed-use development including 77 multi-family residential units, eight of which will be affordable housing units, and 12,000 square feet of ground floor commercial uses on the northwest corner of 3<sup>rd</sup> Street and Flores Street. The commercial uses include 4,000 square feet of retail, 2,000 square feet of fast-food restaurant, and 6,000 square feet of fine dining restaurant. The project will provide a total of 40 vehicle parking spaces for commercial use on two levels of parking above the ground floor commercial uses and 78 (12 short-term and 66 long-term) bicycle parking spaces. Access to the parking garage would be provided along the adjacent alley on the north side of the project site as illustrated in **Attachment A**. The project is expected to be completed by 2027.

B. Freeway Safety Analysis

Per the Interim Guidance for Freeway Safety Analysis memorandum issued by LADOT on May 1, 2020 to address Caltrans safety concerns on freeways, the study addresses the project's effects on vehicle queuing on freeway off-ramps. Such an evaluation measures the project's potential to lengthen a forecasted off-ramp queue and create speed differentials between vehicles exiting the freeway off-ramps and vehicles operating on the freeway mainline. The evaluation identified the number of project trips expected to be added to nearby freeway off-ramps serving the project site. It was determined that project traffic at any freeway off-ramp will not exceed 25 peak hour trips. Therefore, a freeway ramp analysis is not required.

C. CEQA Screening Threshold

Prior to accounting for trip reductions resulting from the application of Transportation Demand Management (TDM) strategies, a trip generation analysis was conducted to determine if the project would exceed the net 250 daily vehicle trips screening threshold. Using the City of Los Angeles VMT Calculator tool, which draws upon trip rate estimates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9<sup>th</sup> Edition as well as applying trip generation adjustments when applicable, based on sociodemographic data and the built environment factors of the project's surroundings, it was determined that the project **does** exceed the net 250 daily vehicle trips threshold.

Additionally, the analysis included further discussion of the transportation impact thresholds:

- T-1 Conflicting with plans, programs, ordinances, or policies
- T-2.1 Causing substantial vehicle miles traveled
- T-3 Substantially increasing hazards due to a geometric design feature or incompatible use.

The assessment determined that the project would **not** have a significant transportation impact under Thresholds T-1 and T-3. A project's impacts per Threshold T-2.1 is determined by using the VMT calculator and is discussed further below. A copy of the VMT Calculator summary report is provided as **Attachment B** to this report.

D. Transportation Impacts

On July 30, 2019, pursuant to SB 743 and the recent changes to Section 15064.03 of the State's CEQA Guidelines, the City of Los Angeles adopted VMT as criteria in determining transportation impacts under CEQA. The LADOT TAG provide instructions on preparing transportation assessments for land use proposals and defines the significant impact thresholds.

The LADOT VMT Calculator tool measures project impact in terms of Household VMT per Capita, and Work VMT per Employee. LADOT identified distinct thresholds for significant VMT impacts for each of the seven APC areas in the City. For the Central APC area, in which the project is located, the following thresholds have been established:

- Household VMT per Capita: 6.0
- Work VMT per Employee: 7.6

As cited in the VMT Analysis report, prepared by KOA, the project proposes to incorporate the TDM strategies of reducing the parking supply from 223 to 40 spaces and including bike parking per Los Angeles Municipal Code (LAMC) as project design features. With the application of these TDM measures, the proposed project is projected to have a Household VMT per capita of 4.1 and no Work VMT. Therefore, it is concluded that implementation of the project would result in no significant VMT impact. A copy of the VMT Calculator summary report is provided as **Attachment B**.

E. Access and Circulation

During preparation of the new CEQA guidelines, the State's Office of Planning and Research stressed that lead agencies can continue to apply traditional operational analysis requirements to inform land use decisions provided that such analyses were outside of the CEQA process. The authority for requiring non-CEQA transportation analysis and requiring improvements to address potential circulation deficiencies, lies in the City of Los Angeles' Site Plan Review

authority as established in Section 16.05 of the LAMC. Therefore, LADOT continues to require and review a project's site access, circulation, and operational plan to determine if any access enhancements, transit amenities, intersection improvements, traffic signal upgrades, neighborhood traffic calming, or other improvements are needed. In accordance with this authority, the project has completed a circulation analysis using a "level of service" screening methodology that indicates that the trips generated by the proposed development will not likely result in adverse circulation conditions at several locations. Access to the project will be provided along the adjacent east-west alley. LADOT has reviewed this analysis and determined that it adequately discloses operational concerns. A copy of the circulation analysis table that summarizes these potential deficiencies is provided as **Attachment C** to this report.

## PROJECT REQUIREMENTS

### Non-CEQA-Related Requirements and Considerations

To comply with transportation and mobility goals and provisions of adopted City plans and ordinances, the applicant should be required to implement the following:

1. Parking Requirements  
The project would provide parking for 40 vehicles and 78 bicycles. The applicant should check with the Departments of Building and Safety and City Planning on the number of parking spaces required for this project within a TPA and TOC Tier 1.
2. Highway Dedication and Street Widening Requirements  
Per the Mobility Element of the General Plan, **3<sup>rd</sup> Street**, an Avenue II, would require a 28-foot half-width roadway within a 43-foot half-width right-of-way, and **Flores Street**, a Local Street, would require an 18-foot half-width roadway within a 30-foot half-width right-of-way. The applicant should check with the Bureau of Engineering's Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.
3. Project Access and Circulation  
The conceptual site plan for the project (see **Attachment A**) is acceptable to LADOT. The project would be accessed via one driveway along the adjacent alley. Review of this study does not constitute approval of the dimensions for any new proposed driveway. Review and approval of any changes to the site plan should be coordinated with LADOT's Citywide Planning Coordination Section <ladot.onestop@lacity.org>. In order to minimize and prevent last minute building design changes, the applicant should contact LADOT for driveway width and internal circulation requirements prior to the commencement of building or parking layout design. The applicant should check with City Planning regarding the project's access location and design.
4. Worksite Traffic Control Requirements  
LADOT recommends that a construction work site traffic control plan be submitted to LADOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to <https://www.ladot.lacity.org/businesses/traffic-engineering-design-plans>. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. LADOT also recommends that all construction related truck traffic be restricted to off-peak hours to the extent feasible.

5. TDM Ordinance Requirements

The TDM Ordinance (LAMC 12.26 J) is currently being updated. The updated ordinance, which is currently progressing through the City's approval process, will:

- Expand the reach and application of TDM strategies to more land uses and neighborhoods,
- Rely on a broader range of strategies that can be updated to keep pace with technology, and
- Provide flexibility for developments and communities to choose strategies that work best for their neighborhood context.

Although not yet adopted, LADOT recommends that the applicant be subject to the terms of the proposed TDM Ordinance update which is expected to be completed prior to the anticipated construction of this project, if approved.

6. Development Review Fees

Section 19.15 of the LAMC identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Eileen Hunt of my staff at (213) 972-8481.

Attachments

*K:\Letters\2023\CEN23-55611\_8339 3rd St\_MU\_ts\_ltr.docx*

- c: Kristen Torres Pawling/Dylan Sittig, Council District 5  
Hokchi Chiu, Central District, BOE  
Rudy Guevara, Western District, DOT  
Taimour Tanavoli, Case Management Office, DOT  
Ryan Kelly, KOA

**ATTACHMENT A**  
**CEN23-55611\_8339 W 3rd St**

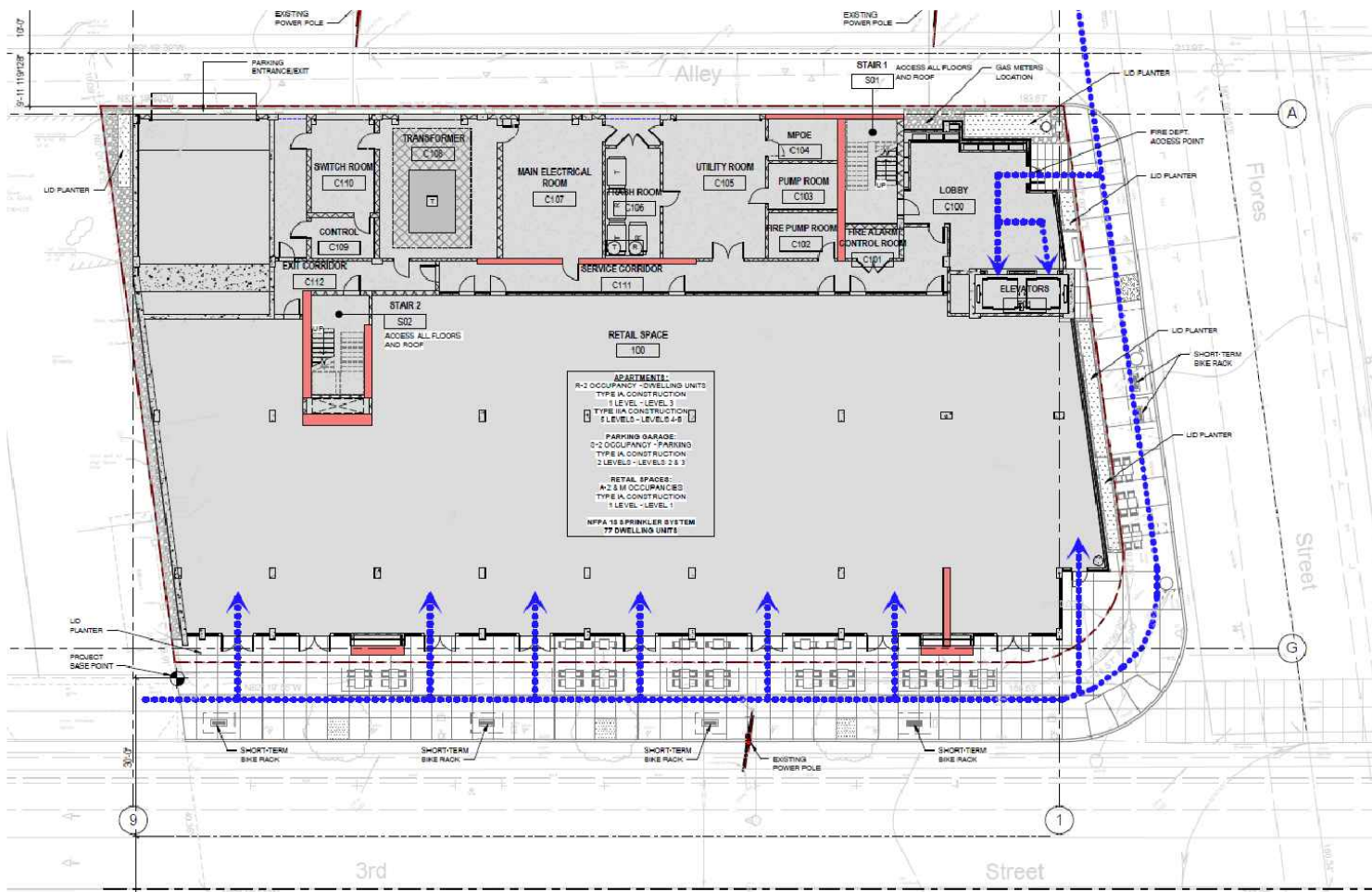
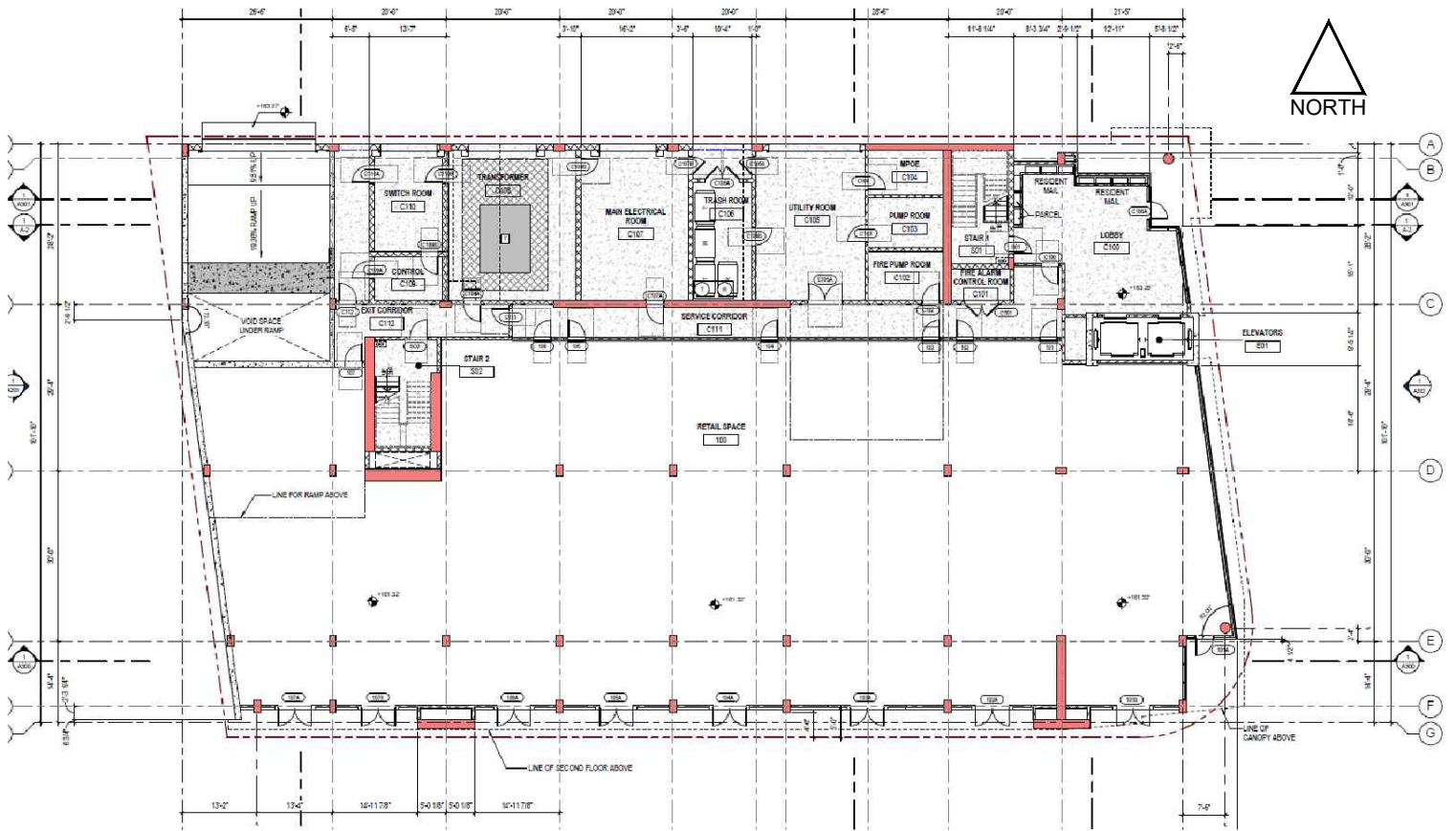


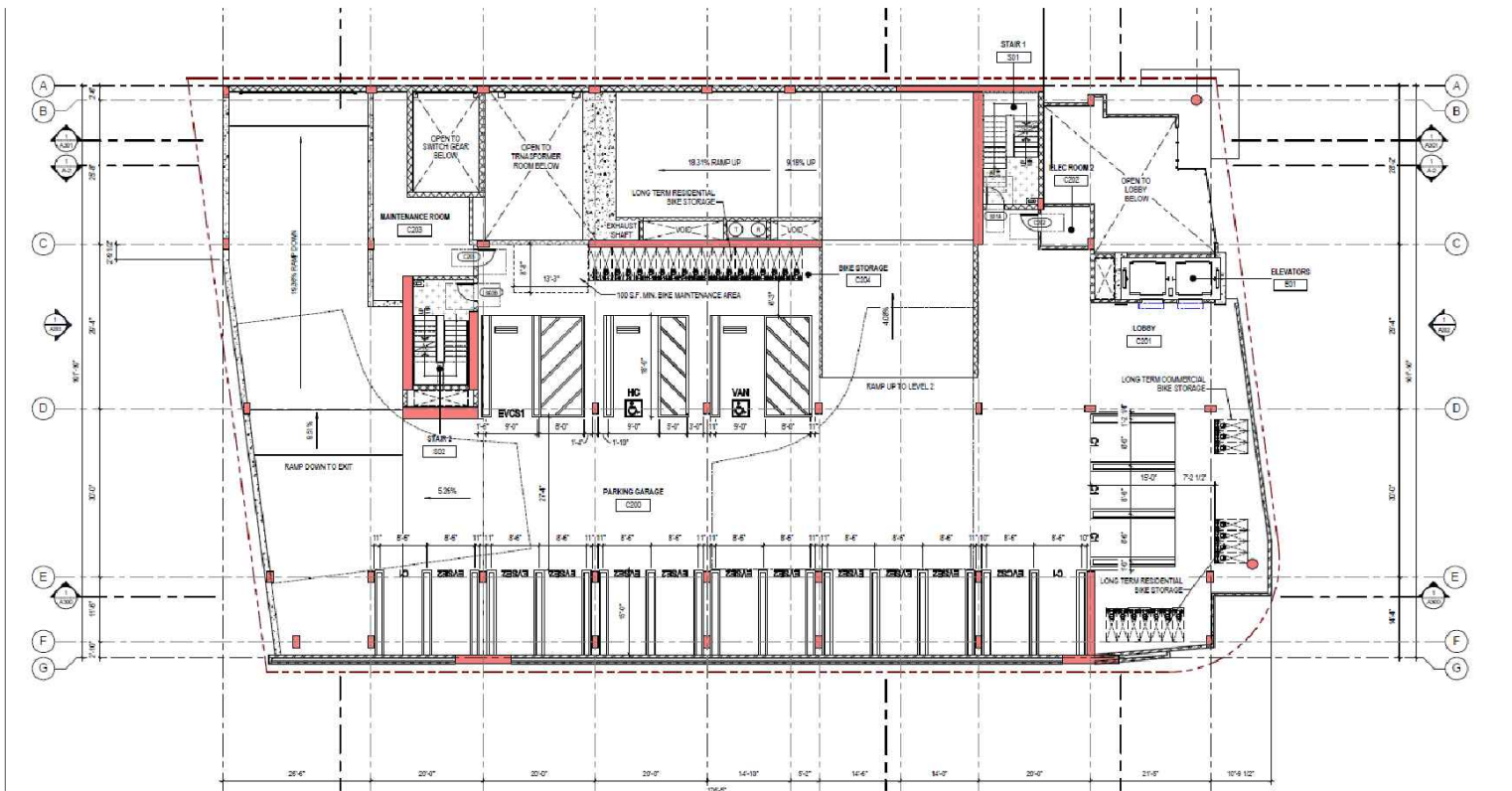
FIGURE 2(a)

6/28/2023





LEVEL 1



LEVEL 2

FIGURE 2(b)

6/28/2023

# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



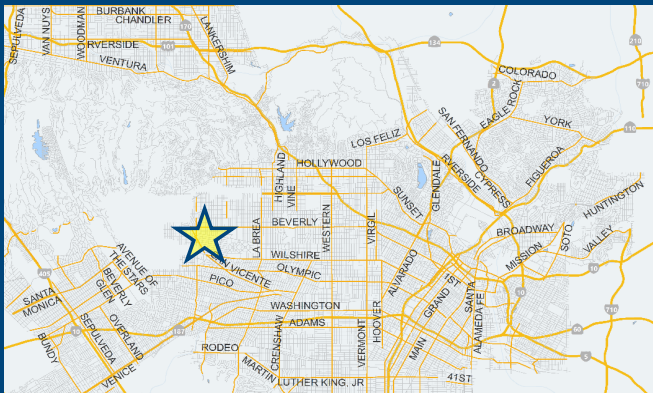
*Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?*

## Project Information

Project:

Scenario:  [WWW](#)

Address:



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?

Yes  No

## Existing Land Use

Land Use Type	Value	Unit
Housing   Single Family		DU

[Click here to add a single custom land use type \(will be included in the above list\)](#)

## Proposed Project Land Use

Land Use Type	Value	Unit
Retail   Fast-Food Restaurant	2	ksf
Housing   Multi-Family	69	DU
Housing   Affordable Housing - Family	8	DU
Retail   General Retail	4	ksf
Retail   Quality Restaurant	6	ksf
Retail   Fast-Food Restaurant	2	ksf

[Click here to add a single custom land use type \(will be included in the above list\)](#)

## Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	995 Daily Vehicle Trips
0 Daily VMT	6,916 Daily VMT
<b>Tier 1 Screening Criteria</b>	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
<b>Tier 2 Screening Criteria</b>	
The net increase in daily trips < 250 trips	995 Net Daily Trips
The net increase in daily VMT ≤ 0	6,916 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	12,000 ksf
<b>The proposed project is required to perform VMT analysis.</b>	



# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

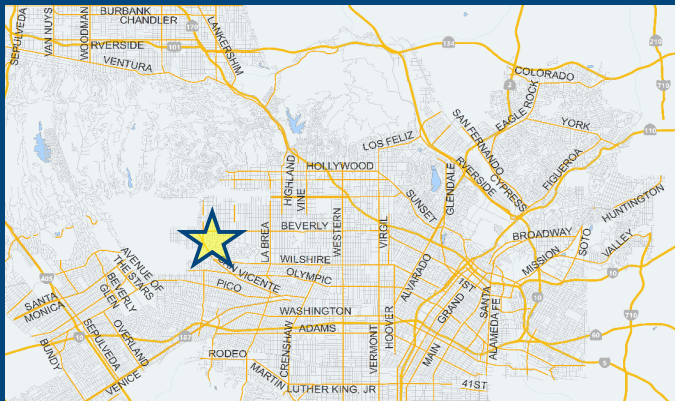


## Project Information

**Project:** 8339 W. 3rd Street Mixed-Use Project

**Scenario:** With Project

**Address:** 8339 W 3RD ST, 90048



Proposed Project Land Use Type	Value	Unit
Housing   Multi-Family	69	DU
Housing   Affordable Housing - Family	8	DU
Retail   General Retail	4	ksf
Retail   Quality Restaurant	6	ksf
Retail   Fast-Food Restaurant	2	ksf

## TDM Strategies

Select each section to show individual strategies  
Use  to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
<b>Max Home Based TDM Achieved?</b>	No	No
<b>Max Work Based TDM Achieved?</b>	No	No
<b>A</b> Parking		
<b>B</b> Transit		
<b>C</b> Education & Encouragement		
<b>D</b> Commute Trip Reductions		
<b>E</b> Shared Mobility		
<b>F</b> Bicycle Infrastructure		
Implement/Improve On-street Bicycle Facility	Select Proposed Prj or Mitigation to include this strategy	
	<input type="checkbox"/> Proposed Prj	<input type="checkbox"/> Mitigation
Include Bike Parking Per LAMC	Select Proposed Prj or Mitigation to include this strategy	
	<input checked="" type="checkbox"/> Proposed Prj	<input type="checkbox"/> Mitigation
Include Secure Bike Parking and Showers	Select Proposed Prj or Mitigation to include this strategy	
	<input type="checkbox"/> Proposed Prj	<input type="checkbox"/> Mitigation
<b>G</b> Neighborhood Enhancement		

## Analysis Results

Proposed Project	With Mitigation
<b>865</b> Daily Vehicle Trips	<b>865</b> Daily Vehicle Trips
<b>6,014</b> Daily VMT	<b>6,014</b> Daily VMT
<b>4.1</b> Household VMT per Capita	<b>4.1</b> Household VMT per Capita
<b>N/A</b> Work VMT per Employee	<b>N/A</b> Work VMT per Employee
<b>Significant VMT Impact?</b>	
<b>Household: No</b> Threshold = 6.0 15% Below APC	<b>Household: No</b> Threshold = 6.0 15% Below APC
<b>Work: N/A</b> Threshold = 7.6 15% Below APC	<b>Work: N/A</b> Threshold = 7.6 15% Below APC





# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

Project Information			
	Land Use Type	Value	Units
<b>Housing</b>	<i>Single Family</i>	0	DU
	<b>Multi Family</b>	69	DU
	<i>Townhouse</i>	0	DU
	<i>Hotel</i>	0	Rooms
	<i>Motel</i>	0	Rooms
<b>Affordable Housing</b>	<b>Family</b>	8	DU
	<i>Senior</i>	0	DU
	<i>Special Needs</i>	0	DU
	<i>Permanent Supportive</i>	0	DU
<b>Retail</b>	<b>General Retail</b>	4.000	ksf
	<i>Furniture Store</i>	0.000	ksf
	<i>Pharmacy/Drugstore</i>	0.000	ksf
	<i>Supermarket</i>	0.000	ksf
	<i>Bank</i>	0.000	ksf
	<i>Health Club</i>	0.000	ksf
	<i>High-Turnover Sit-Down</i>	0.000	ksf
	<i>Restaurant</i>	0.000	ksf
	<b>Fast-Food Restaurant</b>	2.000	ksf
	<b>Quality Restaurant</b>	6.000	ksf
	<i>Auto Repair</i>	0.000	ksf
	<i>Home Improvement</i>	0.000	ksf
	<i>Free-Standing Discount</i>	0.000	ksf
	<i>Movie Theater</i>	0	Seats
<i>Office</i>	<i>General Office</i>	0.000	ksf
	<i>Medical Office</i>	0.000	ksf
<i>Industrial</i>	<i>Light Industrial</i>	0.000	ksf
	<i>Manufacturing</i>	0.000	ksf
	<i>Warehousing/Self-Storage</i>	0.000	ksf
<i>School</i>	<i>University</i>	0	Students
	<i>High School</i>	0	Students
	<i>Middle School</i>	0	Students
	<i>Elementary</i>	0	Students
	<i>Private School (K-12)</i>	0	Students
<i>Other</i>		0	Trips

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

<b>Analysis Results</b>			
Total Employees: 45			
Total Population: 181			
<b>Proposed Project</b>		<b>With Mitigation</b>	
865	Daily Vehicle Trips	865	Daily Vehicle Trips
6,014	Daily VMT	6,014	Daily VMT
4.1	Household VMT per Capita	4.1	Household VMT per Capita
N/A	Work VMT per Employee	N/A	Work VMT per Employee
<b>Significant VMT Impact?</b>			
<b>APC: Central</b>			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
<b>Proposed Project</b>		<b>With Mitigation</b>	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	N/A	Work > 7.6	N/A

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

TDM Strategy Inputs				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Parking</b>	Reduce parking supply	City code parking provision (spaces)	223	223
		Actual parking provision (spaces)	40	40
	Unbundle parking	Monthly cost for parking (\$)	\$0	\$0
	Parking cash-out	Employees eligible (%)	0%	0%
	Price workplace parking	Daily parking charge (\$)	\$0.00	\$0.00
		Employees subject to priced parking (%)	0%	0%
	Residential area parking permits	Cost of annual permit (\$)	\$0	\$0
(cont. on following page)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

TDM Strategy Inputs, Cont.				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Transit</b>	<i>Reduce transit headways</i>	<i>Reduction in headways (increase in frequency) (%)</i>	0%	
		<i>Existing transit mode share (as a percent of total daily trips) (%)</i>	0%	
		<i>Lines within project site improved (&lt;50%, &gt;=50%)</i>	0	
	<i>Implement neighborhood shuttle</i>	<i>Degree of implementation (low, medium, high)</i>	0	0
		<i>Employees and residents eligible (%)</i>	0%	0%
	<i>Transit subsidies</i>	<i>Employees and residents eligible (%)</i>	0%	0%
<i>Amount of transit subsidy per passenger (daily equivalent) (\$)</i>		\$0.00	\$0.00	
<b>Education &amp; Encouragement</b>	<i>Voluntary travel behavior change program</i>	<i>Employees and residents participating (%)</i>	0%	
	<i>Promotions and marketing</i>	<i>Employees and residents participating (%)</i>	0%	
(cont. on following page)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

TDM Strategy Inputs, Cont.				
Strategy Type		Description	Proposed Project	Mitigations
<b>Commute Trip Reductions</b>	<i>Required commute trip reduction program</i>	<i>Employees participating (%)</i>	0%	0%
	<i>Alternative Work Schedules and Telecommute</i>	<i>Employees participating (%)</i>	0%	0%
		<i>Type of program</i>	0	0
		<i>Degree of implementation (low, medium, high)</i>	0	0
	<i>Employer sponsored vanpool or shuttle</i>	<i>Employees eligible (%)</i>	0%	0%
		<i>Employer size (small, medium, large)</i>	0	0
	<i>Ride-share program</i>	<i>Employees eligible (%)</i>	0%	0%
<b>Shared Mobility</b>	<i>Car share</i>	<i>Car share project setting (Urban, Suburban, All Other)</i>	0	0
	<i>Bike share</i>	<i>Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)</i>	0	0
	<i>School carpool program</i>	<i>Level of implementation (Low, Medium, High)</i>	0	0
(cont. on following page)				



TDM Strategy Inputs, Cont.				
Strategy Type		Description	Proposed Project	Mitigations
<b>Bicycle Infrastructure</b>	<i>Implement/Improve on-street bicycle facility</i>	<i>Provide bicycle facility along site (Yes/No)</i>	0	0
	<b>Include Bike parking per LAMC</b>	<b>Meets City Bike Parking Code (Yes/No)</b>	Yes	Yes
	<i>Include secure bike parking and showers</i>	<i>Includes indoor bike parking/lockers, showers, &amp; repair station (Yes/No)</i>	0	0
<b>Neighborhood Enhancement</b>	<i>Traffic calming improvements</i>	<i>Streets with traffic calming improvements (%)</i>	0%	0%
		<i>Intersections with traffic calming improvements (%)</i>	0%	0%
	<i>Pedestrian network improvements</i>	<i>Included (within project and connecting off-site/within project only)</i>	0	0

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
<b>Parking</b>	Reduce parking supply	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
<b>Transit</b>	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Education &amp; Encouragement</b>	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Commute Trip Reductions</b>	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Shared Mobility</b>	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		<b>Bicycle Infrastructure</b>	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
<b>Neighborhood Enhancement</b>	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

### Final Combined & Maximum TDM Effect

	Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
	<b>COMBINED TOTAL</b>	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
<b>MAX. TDM EFFECT</b>	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%

$$= \text{Minimum}(X\%, 1 - [(1-A) * (1-B) \dots])$$

where X%=

<b>PLACE</b>	urban	75%
<b>TYPE</b>	compact infill	40%
<b>MAX:</b>	suburban center	20%
	suburban	15%

Note:  $(1 - [(1-A) * (1-B) \dots])$  reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B, ...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G*) for further discussion of dampening.



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 4: MXD Methodology

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

### MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	69	-21.7%	54	6.2	428	335
Home Based Other Production	190	-42.6%	109	4.8	912	523
Non-Home Based Other Production	279	-6.5%	261	7.1	1,981	1,853
Home-Based Work Attraction	66	-33.3%	44	8.4	554	370
Home-Based Other Attraction	526	-37.1%	331	7.5	3,945	2,483
Non-Home Based Other Attraction	211	-7.1%	196	6.9	1,456	1,352

### MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-13.0%	47	291	-13.0%	47	291
Home Based Other Production	-13.0%	95	455	-13.0%	95	455
Non-Home Based Other Production	-13.0%	227	1,611	-13.0%	227	1,611
Home-Based Work Attraction	-13.0%	38	322	-13.0%	38	322
Home-Based Other Attraction	-13.0%	288	2,159	-13.0%	288	2,159
Non-Home Based Other Attraction	-13.0%	170	1,176	-13.0%	170	1,176

### MXD VMT Methodology Per Capita & Per Employee

Total Population: 181

Total Employees: 45

APC: Central

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
<i>Total Home Based Production VMT</i>	<b>746</b>	<b>746</b>
<i>Total Home Based Work Attraction VMT</i>	<b>322</b>	<b>322</b>
<i>Total Home Based VMT Per Capita</i>	<b>4.1</b>	<b>4.1</b>
<i>Total Work Based VMT Per Employee</i>	<b>N/A</b>	<b>N/A</b>

**ATTACHMENT B**  
**CEN23-55611\_8339 W 3rd St**

**Table 10: Future (2027) Traffic Conditions  
Intersection Delay Summary**

No.	Study Intersection	Peak	Approach	Future Without Project		Future With Project		
				Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Change <sup>3</sup>
1	3rd Street & Kings Road	AM	Overall	0.8	-	1.6	-	0.8
			EB	0.4	-	0.9	-	0.5
			WB	0.0	-	0.0	-	0.0
			SB	23.5	C	26.7	D	3.2
		PM	Overall	1.1	-	1.3	-	0.2
			EB	0.9	-	1.1	-	0.2
			WB	0.0	-	0.0	-	0.0
			SB	18.3	C	18.9	C	0.6
2	3rd Street & Flores Street	AM	Overall	0.6	-	2.1	-	1.5
			EB	0.7	-	1.2	-	0.5
			WB	0.0	-	0.0	-	0.0
			SB	27.2	D	62.5	F	35.3
		PM	Overall	1.0	-	1.7	-	0.7
			EB	0.8	-	1.1	-	0.3
			WB	0.0	-	0.0	-	0.0
			SB	23.6	C	34.9	D	11.3

Notes:  
<sup>1</sup> Delay in seconds; <sup>2</sup> LOS = Level of Service; <sup>3</sup> Change in delay reported in seconds.  
Per the *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis*, at two-way stop-controlled intersections, LOS is not defined for the intersection or for the major-street approaches.

# TRANSPORTATION ASSESSMENT

City of Los Angeles

## 8339 W. 3RD STREET MIXED-USE PROJECT

8339 W. 3RD STREET  
LOS ANGELES, CA 90048

*July 18, 2023*

*Prepared For:*  
Flores Fund, LLC  
660 S. Figueroa, 7th Floor  
Los Angeles, CA 90017

JC38065

*Prepared by:*



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# 1. INTRODUCTION

KOA Corporation has prepared this Transportation Assessment (TA) to evaluate the potential transportation impacts of the 8339 W. 3rd Street mixed-use project (the “Project”), a proposed residential mixed-use development. The Project will consist of 77 multifamily dwelling units, of which 8 will be reserved for affordable housing, and up to 12,000 square feet of ground-floor commercial space. The Project site was recently occupied by a 12,274 square-foot institutional building, which has been removed in conjunction with Project development.

The Project site is located at the northwest corner of 3rd Street and Flores Street, at 8339 W. 3rd Street, within the Wilshire Community Plan Area of the City of Los Angeles (the “City”). The site is bounded by an alley and multifamily residential land uses to the north, an automotive body shop to the west, 3rd Street and commercial uses to the south, and Flores Street and commercial uses to the east. The location of the Project site is shown in Figure 1, Project Site Vicinity and Study Intersections.

Within the Project vicinity, commercial uses line 3rd Street, while single and multifamily residential buildings are along the nearby local roadways and collector streets. Project automobile parking will be provided on site and will be located above-ground on Levels 2 and 3 of the Project. A total of 40 automobile parking spaces will be provided, with 19 spaces on Level 2 and 21 spaces on Level 3. All Project vehicular access will be via a driveway at the northwest corner of the site that will intersect the south side of the alley that bounds the Project to the north. The alley connects to both Kings Road and Flores Street.

This analysis was prepared in accordance with the assumptions, methodologies, and procedures outlined in the City of Los Angeles Department of Transportation (LADOT) *Transportation Assessment Guidelines* (the “TAG”) adopted in August 2022. The detailed assumptions and scope of the analysis for the specific analysis that are contained in this report were presented to and approved by the LADOT in a TA Memorandum of Understanding (MOU), signed and approved on June 22, 2023. The approved MOU is included in Appendix A of this report.

The MOU outlined the preparation of a detailed analysis of potential Project transportation impacts based on California Environmental Quality Act (CEQA) guidelines, as well as an evaluation of potential non-CEQA related Project transportation effects. The Project study area for the operational analysis was determined as part of the MOU and is discussed later in this report. The study area contains the following two intersections, which are also depicted in Figure 1:

## Study Intersections

1. 3rd Street & Kings Road
2. 3rd Street & Flores Street

These locations include key intersections along the primary access routes to and from the site and are those locations expected to be most directly affected by Project traffic. This report presents the results and conclusions of the evaluation of the CEQA transportation impacts and non-CEQA transportation effects of the Project. The operational analysis includes the following traffic conditions:

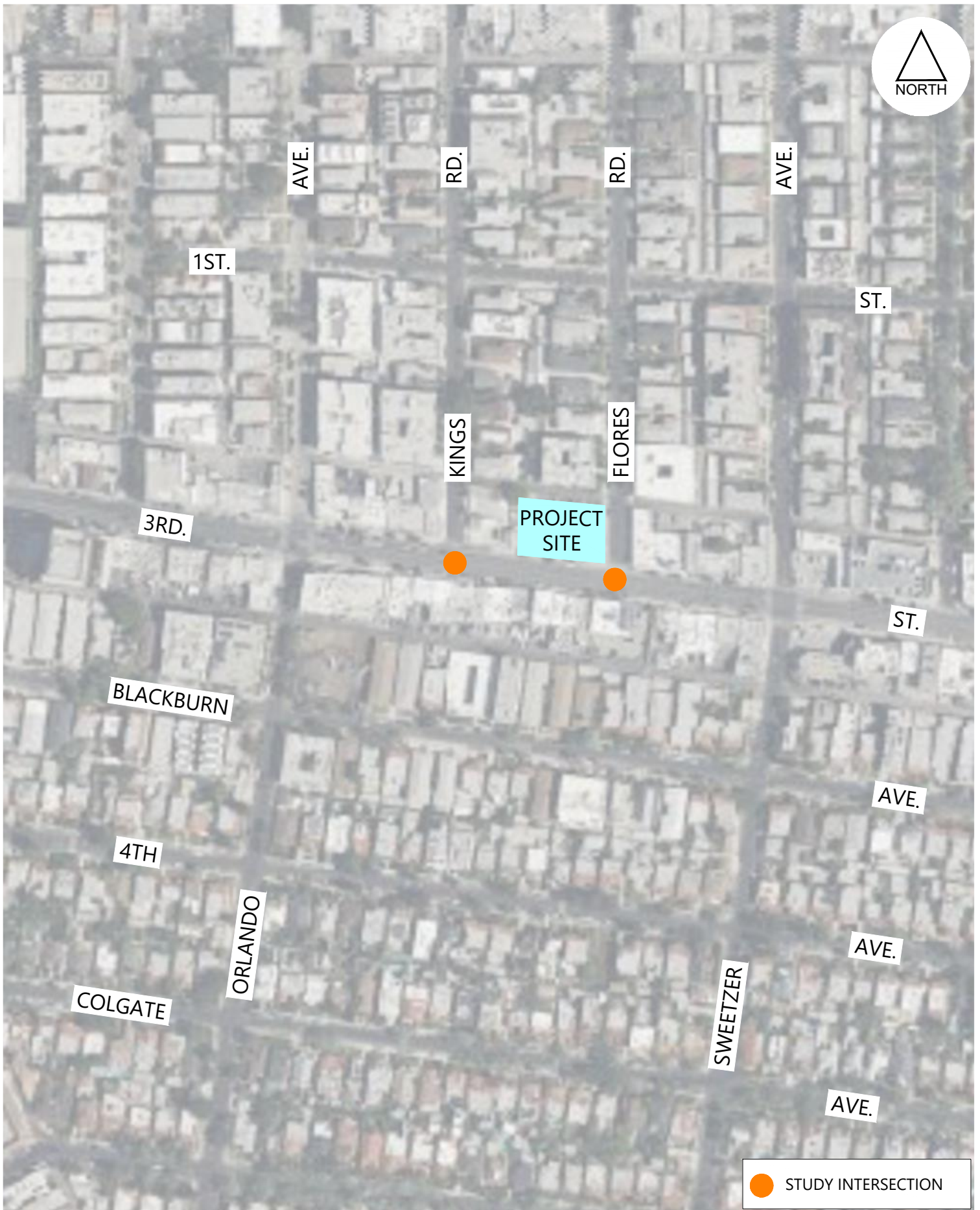


FIGURE 1

7/10/2023

- Existing (2023) traffic volumes
- Existing (2023) Plus Project traffic volumes
- Future (2027) Without Project traffic volumes
- Future (2027) With Project traffic volumes



## 2. PROJECT DESCRIPTION

Under consideration is the 8339 W. 3rd Street mixed-use project (the "Project"), to be located at the northwest corner of 3rd Street and Flores Street in the Wilshire Community Plan Area of the City. The site is generally bounded by an alley and multifamily residential land uses to the north, an automotive body shop to the west, 3rd Street and commercial uses to the south, and Flores Street and commercial uses to the east. Within the Project vicinity, commercial land uses are located along 3rd Street, and residential uses are located along nearby local roadways and collector streets.

The existing site is currently vacant, but it was recently occupied by a 12,274 square-foot institutional building (last operating in November 2022). The Project proposes a residential mixed-use building that will contain 77 multifamily residential dwelling units (including 8 units set aside for affordable housing) and up to 12,000 square feet of ground-floor commercial space. The ground-floor commercial space will conservatively be divided into up to 4,000 square feet of commercial retail space, up to 6,000 square feet of fine dining restaurant space, and up to 2,000 square feet of coffee shop space.

Figures 2(a) and 2(b) illustrate the ground floor and Levels 2 and 3 of the Conceptual Project Site Plan. On-site automobile parking for the Project will be provided on Levels 2 and 3 of the building. All Project vehicular access will be via a driveway at the northwest corner of the site that intersects the alley that bounds the Project to the north. This alley connects to Flores Street to the east and Kings Road to the west. The existing driveway along Flores Street that serves the former institutional use on the site will be removed.

As proposed, Project automobile parking will be provided on site and will be located above ground on Levels 2 and 3 of the building. A total of 40 automobile parking spaces will be provided, with 19 spaces on Level 2 and 21 spaces on Level 3. The automobile parking spaces will include a mix of standard, compact, and ADA accessible spaces, including those electric vehicle (EV) charging stations and supply equipment. Per Assembly Bill 2097 (AB 2097), zero automobile parking is required for the Project.

In addition, the Project will provide 66 long-term and 12 short-term bicycle parking spaces, which is consistent with Los Angeles Municipal Code (LAMC) Section 12.21.A.16 outlining bicycle parking requirements. Long-term bicycle parking will be provided on Level 2 of the building, while the short-term bicycle parking will be provided along the north side of 3rd Street and west side of Flores Street, adjacent to the Project's ground-floor commercial uses. There would be a total of 6 long-term and 6 short-term bicycle parking spaces for the commercial component of the Project, and 6 short-term and 60 long-term bicycle parking spaces for the residential component.

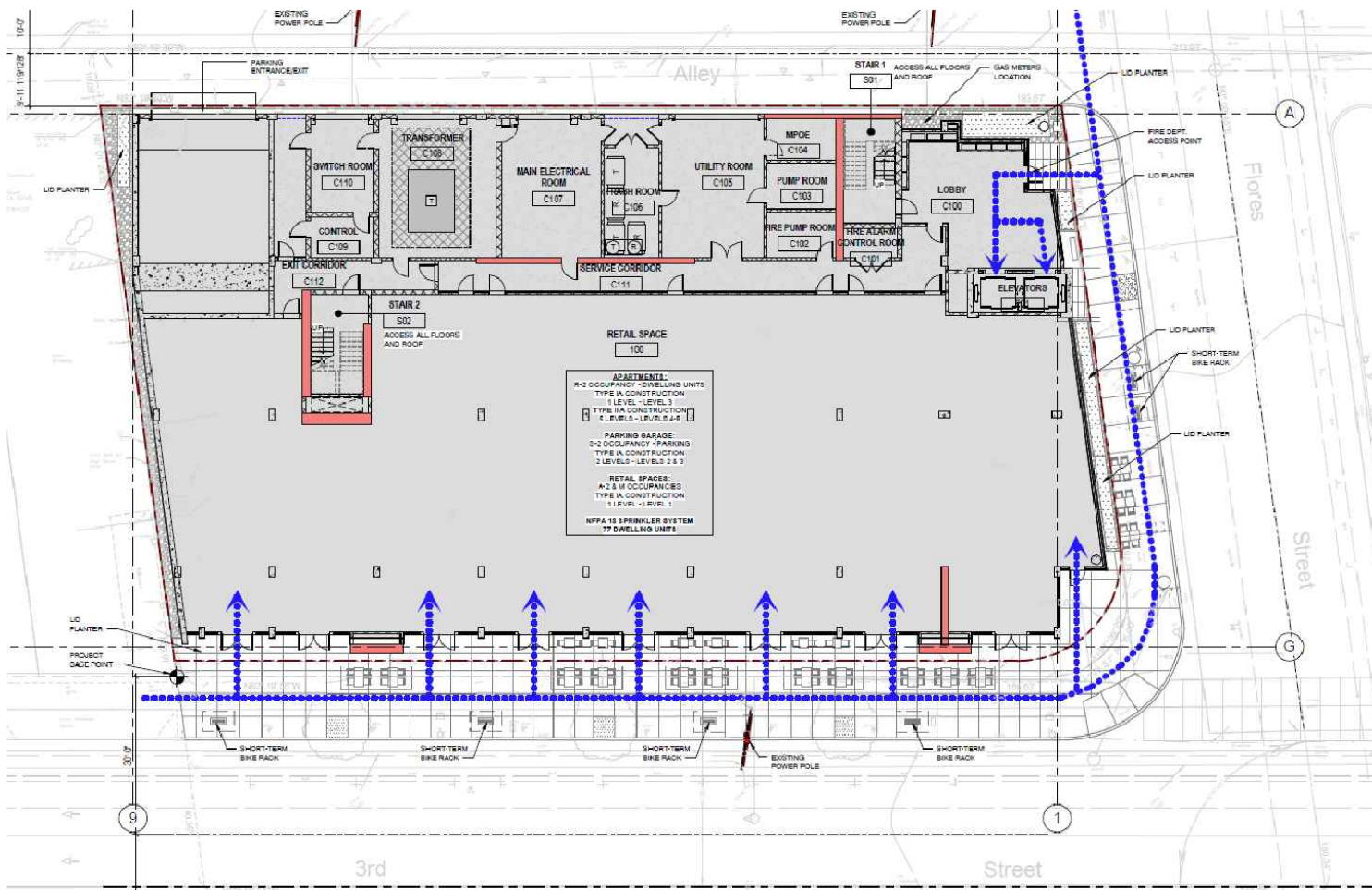
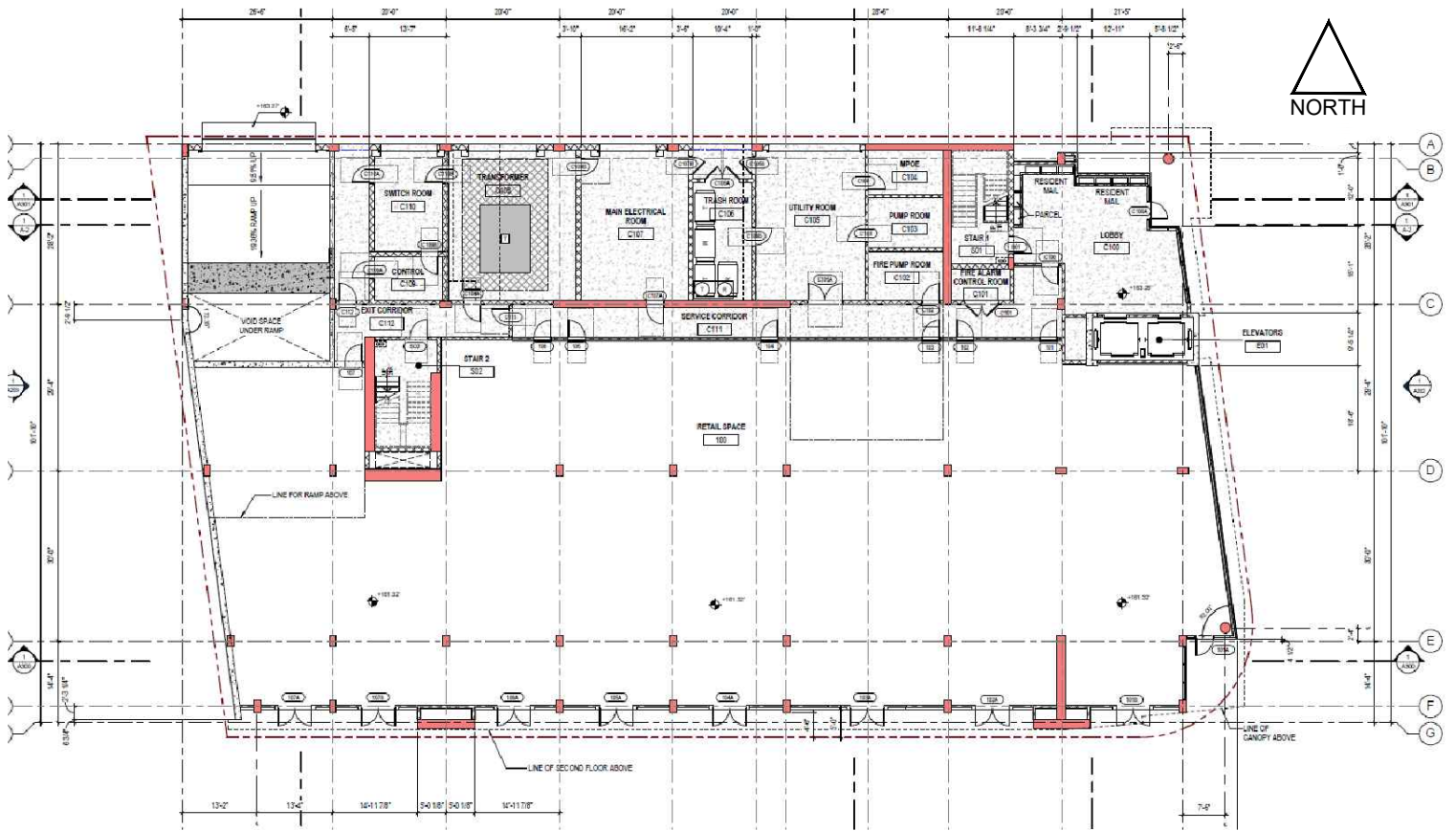


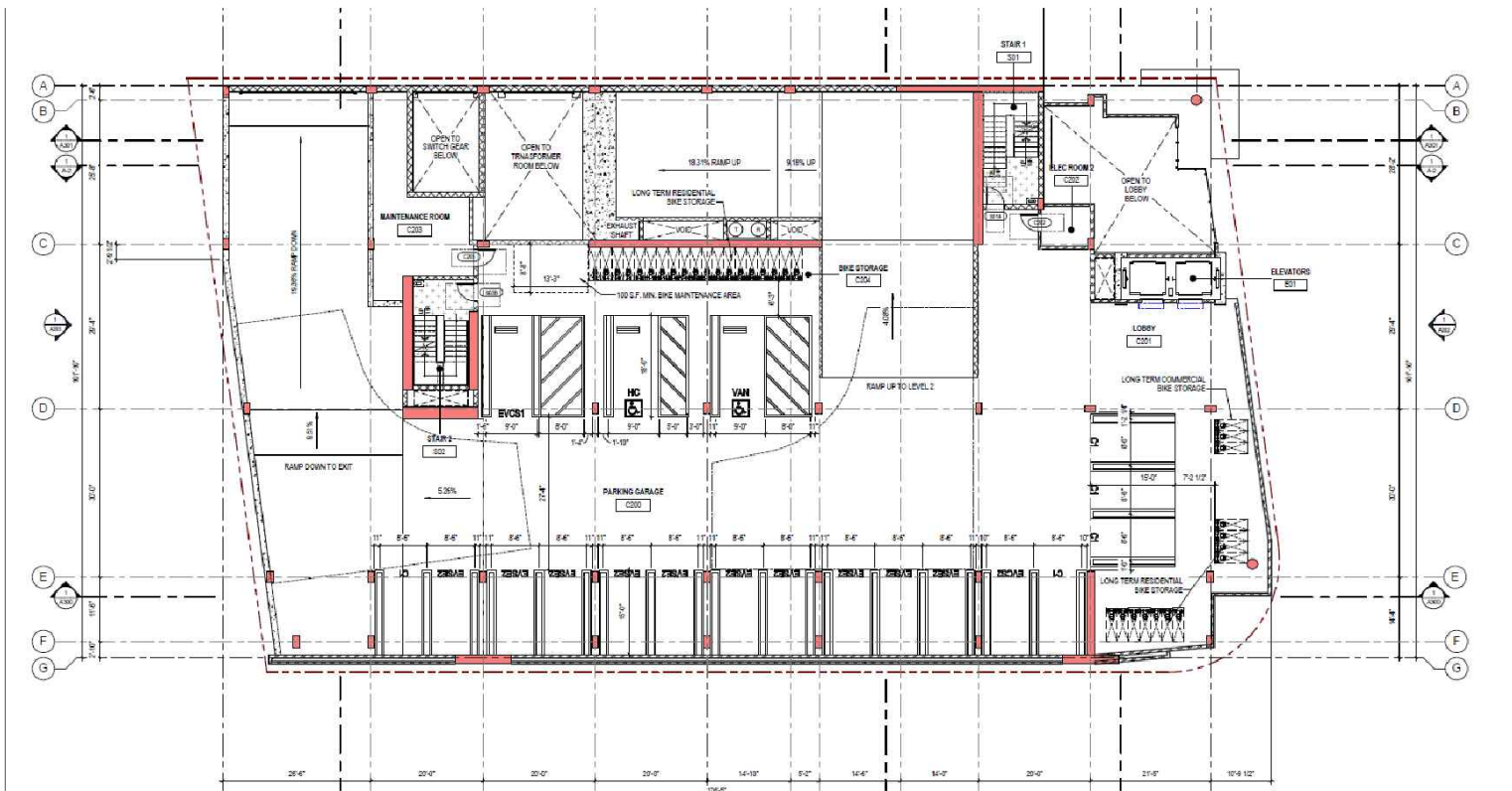
FIGURE 2(a)

6/28/2023





LEVEL 1



LEVEL 2

FIGURE 2(b)

6/28/2023

## 3. ENVIRONMENTAL SETTING

The Project is located at 8339 W. 3rd Street, at the northwest corner of 3rd Street and Flores Street. Located within the Beverly Grove neighborhood of the City, the Project site is surrounded by an urban area dominated by commercial uses along major arterials. Residential uses within the Project vicinity are located in all directions, along local streets and collector roadways outside of the major commercial corridors. The Beverly Connection and Beverly Center retail centers are located approximately one-quarter and one-third mile to the east along 3rd Street, respectively, with the Cedars Sinai Medical Center situated just west of the Beverly Center. The Original Farmer Market, The Grove shopping center, and the Park La Brea Apartments complex are all located just over one-half mile to the east along 3rd Street, along with Pan Pacific Park.

The Project site and surrounding uses in the Beverly Grove neighborhood are well served by Freeways, Boulevards, Avenues, Collectors and Local Streets. Freeways include the Santa Monica (Interstate 10 [I-10]) Freeway that is located approximately 2.5 miles south of the Project site, which has an interchange at La Cienega Boulevard. Within the study area, the primary roadways and roadway classifications, according to the City of Los Angeles Mobility Plan 2035, include 3rd Street designated as an Avenue II, and Kings Road and Flores Street identified as Local Streets. The Project site is accessible via a network of sidewalks to public transportation with bus stops provided at the intersections of 3rd Street & Orlando Avenue and 3rd Street & Sweetzer Avenue. The Project area transportation facilities are described below in more detail.

### 3.1 EXISTING ROADWAY NETWORK

Regional access to the Project vicinity is provided by an extensive network that includes freeways, arterials, collectors, and local streets. The Santa Monica (I-10) Freeway is located to the south of the Project site. This freeway provide convenient access to the larger, regional roadway network. Surface streets within the Project study area include Kings Road, Flores Street, and 3rd Street. These facilities are described in greater detail below.

#### 3.1.1 EXISTING FREEWAYS

The Santa Monica Freeway (I-10) extends eastward from its origin in the City of Santa Monica, past the Project study area and across the country as a main southern east-west interstate. The Santa Monica Freeway is located approximately 2.5 miles south of the Project site, where it generally provides four mainline travel lanes per direction, with auxiliary lanes provided between certain ramp locations. This freeway carries average daily traffic volumes of approximately 248,000 vehicles west of its interchange with La Cienega Boulevard/Venice Boulevard (State Route 187 [SR-187]). The nearest eastbound westbound ramp connections are provided on La Cienega Boulevard, Venice Boulevard (SR-187), Fairfax Avenue, and Washington Boulevard.

#### 3.1.2 EXISTING HIGHWAYS AND STREETS

Flores Street is a north-south roadway that forms the eastern boundary of the Project site. The roadway extends discontinuously through the City of West Hollywood and the Beverly Grove neighborhood between De Longpre Avenue and 3rd Street. The roadway is designated as a Local Street along its entire extent. Within the study area, Flores Street provides one travel lane in each direction with no centerline. On-street parking is generally permitted along both sides of Flores Street.

Kings Road is a north-south roadway designated as a Local Street in the Mobility Plan. This roadway travels discontinuously from its northern terminus north of Sunset Boulevard to its southern terminus at 3rd Street. Kings Road is located just west of the Project site and provides access through the City of West Hollywood and the Beverly Grove neighborhood. This roadway provides one travel lane in each direction in the vicinity of the Project, with on-street parking generally permitted along both sides.

3rd Street is an east-west roadway, designated as an Avenue II in the Mobility Plan, that forms the southern boundary of the Project site. This roadway travels continuously from its western terminus in the City of Beverly Hills to Downtown Los Angeles, where it becomes a discontinuous street east of Los Angeles. 3rd Street provides two travel lanes in each direction in the vicinity of the Project, separated by a double-yellow centerline, with on-street parking generally permitted along both sides of the roadway. Left-turn channelization is provided at some major intersections.

### 3.2 EXISTING PUBLIC TRANSIT

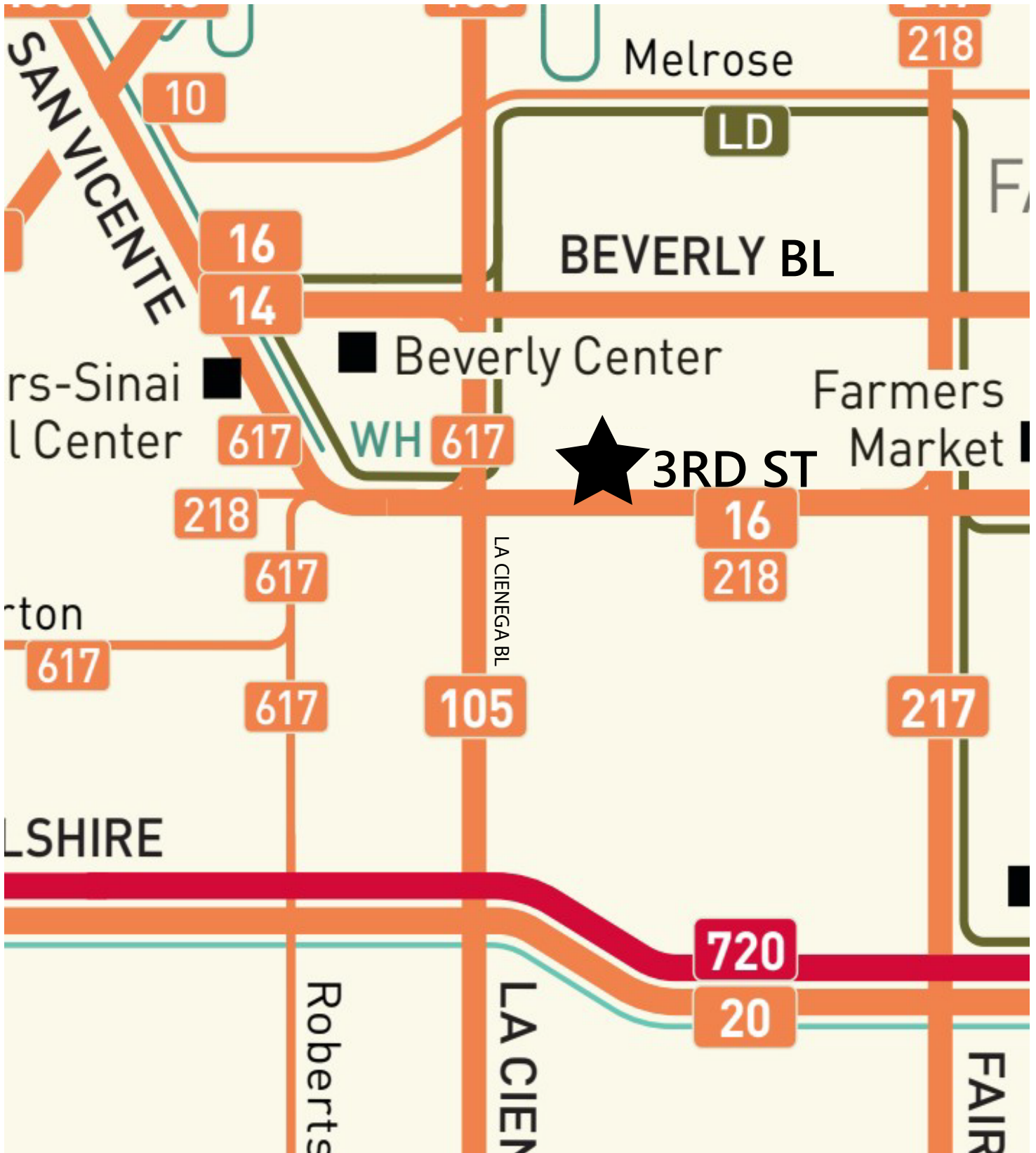
The roadways adjacent to the Project site are served by bus lines managed by the Los Angeles County Metropolitan Transportation Authority (“Metro”). These bus lines provide a variety of bus services and, when transfer opportunities are considered, the bus services outlined below provide access to Metro rail services and numerous other bus routes served by Metro, the LADOT, and municipal bus operators. The bus services within a reasonable/comfortable walking distance (approximately one-quarter mile) of the Project site are shown in Figure 3 and described below.

#### **METRO**

Line 14 provides east-west local bus service mainly along Beverly Boulevard, 1st Street, Grand Avenue, Adams Boulevard, and Olive Street. Along the route, buses travel through the Beverly Grove, Fairfax Village, Park La Brea, Hancock Park, Koreatown, and Downtown neighborhoods of the City of Los Angeles, in addition to West Hollywood. In the vicinity of the Project, buses travel east-west along Beverly Boulevard, with bus stops provided in both directions at the intersection with Sweetzer Avenue. Line 14 generally provides daily service, with headways of approximately 10 minutes during the weekday AM and PM peak periods and 15 minutes on weekends and holidays.

Line 16 provides east-west bus service mainly along Sunset Boulevard, San Vicente Boulevard, 3rd Street, and 5th Street between West Hollywood and Downtown Los Angeles. Along the route, buses travel through the City of West Hollywood and Beverly Grove, Park La Brea, Hancock Park, Koreatown, Westlake, and Downtown neighborhoods of the City of Los Angeles. In the vicinity of the Project, buses run east-west along 3rd Street, with bus stops provided in both directions at the intersections with Orlando Avenue and Sweetzer Avenue. Line 16 generally provides daily service between 4:00 AM and 1:00 AM, with headways of approximately 5 minutes during the weekday AM and PM peak periods and 10 minutes on weekends and holidays.

Line 218 provides north-south local bus service mainly along Laurel Canyon Boulevard, Crescent Heights Boulevard, Fairfax Avenue, and 3rd Street between Studio City and the City of Beverly Hills. Along the route, buses travel through Studio City, Mount Olympus, the City of West Hollywood, Park La Brea, and the City of Beverly Hills. In the vicinity of the Project, buses run east-west along 3rd Street, with bus stops provided in both directions at the intersections with Orlando Avenue and Sweetzer Avenue. Line 218 generally provides daily service between 5:00 AM and 9:30 PM, with headways of approximately 55 minutes during the weekday AM and PM peak periods and on weekends and holidays.



★ PROJECT SITE

FIGURE 3

06/08/2023  
 FN: J:\2023\JC38065 LA 8339 W 3rd St Mixed Use TA\Documents\Figs\TRANSIT

## 4. CEQA ANALYSIS OF TRANSPORTATION IMPACTS

Following the passage of Senate Bill 743 (SB 743), the State of California's Governor's Office of Planning and Research (OPR) was tasked with developing new guidelines for evaluating transportation impacts under CEQA. These guidelines are intended to promote the reduction of greenhouse gas emissions and develop multimodal and diverse transportation networks by shifting the transportation performance metric from automobile delay and level of service (LOS) to vehicle miles traveled (VMT). As a result, OPR determined that under the proposed update to the CEQA guidelines, VMT would be established as the primary metric for evaluating environmental and transportation impacts.

In response to the updates to the CEQA guidelines, the LADOT updated the City's TAG in July 2020 and August 2022 to conform to the requirements of SB 743. The TAG replaced the *Transportation Impact Studies Guidelines* and shifted the performance metric for evaluating transportation impacts under the CEQA from LOS to VMT for studies completed within the City. The TAG establishes thresholds to identify development projects that would conflict with the updated CEQA guidelines.

As part of the TAG update, the LADOT identified three significance thresholds to determine if a development project would result in transportation impacts under the updated CEQA guidelines. The development project would have a significant impact should any of the following be true:

1. The development project would conflict with the City's plans, programs, ordinances, or policies.
2. The development project would cause substantial VMT.
3. The development project would substantially increase hazards due to a geometric design feature or incompatible use(s).

An evaluation of the Project's potential impacts under these three metrics follows the updated TAG and is presented in the following sections.

### 4.1 CONFLICTING WITH PLANS, PROGRAMS, ORDINANCES, OR POLICIES (THRESHOLD T-1)

In line with the City's efforts to achieve a transportation system that meets the needs of all roadway users, the City has adopted numerous transportation-related plans and policies that promote safety for motorists, pedestrians, bicyclists, and transit riders. For the goals of these policies to be fully realized, it is paramount that development projects align with these plans and policies. For this reason, the updated TAG establishes the following threshold to ensure that proposed development projects contribute to achieving an accessible and sustainable transportation network.

*Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?*

The TAG has also established three screening criteria for determining which development projects are required to assess compliance with the City's plans, programs, ordinances, and policies. If any of the criteria are met, a compliance assessment is required. The criteria are listed below:

1. The development project requires a discretionary action that requires the decision maker to find that the decision substantially conforms to the purpose, intent, and provisions of the General Plan.
2. The development project is known to directly conflict with a transportation plan, policy, or program adopted to support multi-modal transportation options or public safety.
3. The development project is proposing to, or is required to, make modifications to the public right-of-way (e.g., street dedications and/or improvements in the right-of-way, reconfigurations of the curb line, etc.).

Based on the above screening criteria, the Project would meet the following screening questions:

- The Project requires a discretionary action.
- The Project is proposing to make modifications to the public right-of-way.

Therefore, the Project's compliance with the City's plans and policies will need to be assessed and is discussed in further detail below.

The review of the applicable plans and policies included the Mobility Plan 2035, Plan for A Healthy Los Angeles, Wilshire Community Plan, AB 2097, Los Angeles Vision Zero Plan, Citywide Design Guidelines, LAMC, Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), and City Planning Department's Walkability Checklist. These are discussed in further detail below. Additionally, Appendix B includes the LADOT Attachment D: Plan Consistency Worksheet (the "Plan Worksheet") that outlines general questions that assist in the determination of whether or not a development project conflicts with a plan, policy, or program.

Based on the reviews, the Project will support and not preclude the implementation of the City's transportation-related goals and policies, as explained below. Therefore, the Project will not have a significant impact regarding compliance with the City's plans, programs, ordinances, or policies. The Project is also not expected to contribute to a cumulative impact related to implementation of the City's transportation-related goals and policies, as there are no related development projects in the direct Project vicinity that could affect local policy compliance.

#### **4.1.1 MOBILITY PLAN 2035**

The Project would embrace the objectives of the Mobility Plan 2035, which also includes the goals and policies of the City of Los Angeles General Plan and Bicycle Plan. The Mobility Plan designates 3rd Street, the roadway bordering the Project site to the south, as an Avenue II. This designation entails a 56-foot wide roadway within an 86-foot wide right-of-way. The segment of 3rd Street adjacent to the Project site presently has a 56-foot wide roadway within an 83-foot wide right-of-way, with only the 3-foot dedication on the south side of the roadway required to meet the roadway's ultimate dimensions. The Project, therefore, has already made the necessary dedication to achieve the roadway's ultimate half right-of-way. The Mobility Plan indicates that 3rd Street is identified as part of the City's Transit Enhanced Network (TEN) and a Pedestrian Enhanced District (PED). The Mobility Plan designates Flores Street, the roadway bordering the Project site to the east, as a Local Street. This designation entails a 36-foot wide roadway within a 60-foot wide right-of-way. The segment of Flores Street adjacent to the Project site currently has a 40-foot wide roadway within a 60-foot right-of-way. The Project is not required to make additional improvements to Flores Street. The Project will add short-term bicycle parking along both roadways, furthering the City's active transportation goals.



In compliance with LADOT's goals and policies, the Project driveway will be located along the alley bounding the site to the north. As mentioned in the Mobility Plan policy regarding the location of driveways along non-arterial roadways, the proposed driveway has been designed in order to provide for safe and efficient operation that considers all roadway users. Sufficient sight distance will also be provided in order to identify conflicting vehicles, bicycles, and pedestrians. Thus, since the driveway is proposed along an alley, the design and operation of this access point will likely provide safe operations for vehicles, pedestrians, and bicyclists, alike, while also minimizing potential conflicts with traffic along Kings Road and Flores Street. The existing site driveway on Flores Street will be removed in conjunction with Project construction.

In summary, the Project is consistent with the Mobility Plan 2035 for public right-of-way classification standards and dedications; policy alignment with Project-initiated changes; and network access (Plan Worksheet, Sections II.A, II.B, and II.C, respectively).

#### **4.1.2 PLAN FOR A HEALTHY LOS ANGELES**

The Plan for a Healthy Los Angeles, as established in March 2015, is meant to prioritize health and social equity in the City's plans for future growth and development. The Plan is guided by principles of holistic health, the link between community design and health, and active transportation, among other principles. Chapter 2 of The Plan, A City Built for Health, promotes multi-modal corridors and accessible services as features of a safe and healthy city. The development of the Project will not preclude the Plan's goals of promoting active transportation and a healthy city. As a residential mixed-use project with short-term and long-term bicycle parking, the Project will be conducive to this active mode of travel for residents, employees, and guests alike.

#### **4.1.3 WILSHIRE COMMUNITY PLAN**

The Wilshire Community Plan, as adopted in September 2001, summarizes key issues and opportunities in the area through the development of goals, objectives, policies, and programs associated with multiple land uses including residential and commercial projects that lie within its boundaries. Under the Land Use Plan Policies and Programs (Chapter 3), transportation section, several transportation goals and policies are noted for the area. By increasing residential density near a major transit stop which provides rapid bus service, the Project supports the objectives of encouraging the use of local and express bus service within the community plan area. Additionally, the Project will encourage and establish a system of safe and efficient bicycle and pedestrian facilities by installing bicycle racks and maintaining spacious sidewalks adjacent to the site.

The Wilshire Community Plan also encourages the establishment of a Transportation Demand Management (TDM) program to promote the more effective use of existing roadway facilities by reducing single-occupancy automobile travel and promoting alternative modes of transportation. The implementation of TDM strategies will help promote increased active non-motorized mode of travel by Project residents, as well as provide carpooling and ridesharing opportunities for Project residents, employees, and patrons. As discussed, the Project will conform to the requirements of the City's TDM Ordinance and will implement bicycle parking features and parking reductions that qualify as TDM strategies and will assist in meeting the TDM Community Plan objective. The Project will also fulfill this objective by providing residential uses close to transit facilities, which will reduce vehicular trips and provide greater accessibility to local and regional

destinations. Thus, the Project will help realize several of the transportation programs noted within the area Community Plan.

#### 4.1.4 ASSEMBLY BILL 2097

AB 2097 is a California law that prohibits public agencies or cities from imposing a minimum automobile parking requirement on most development projects within a one-half mile radius of a major transit stop. Projects located within one-half mile of a major transit stop are generally eligible for the automobile parking reduction provided by AB 2097. This includes residential, commercial, and industrial projects. As a residential/commercial mixed-use development project within one-half mile of a major transit stop (La Cienega Boulevard & 3rd Street), the Project is eligible for this parking reduction. The Project proposes to provide 40 commercial and 0 residential automobile parking spaces, which falls below the standard LAMC parking requirements. Reduced parking from the amount required by direct application of the LAMC parking rates, without consideration of parking reduction mechanisms, is considered a benefit to reducing VMT. Therefore, the Project's parking reductions, if approved, are accounted for in the VMT analysis.

#### 4.1.5 VISION ZERO

Vision Zero was launched by the Mayor of Los Angeles in August 2015 with the goal of eliminating all traffic fatalities citywide by 2025. Vision Zero specifically seeks to implement traffic safety treatments at intersections and along roadway segments to improve safety for pedestrians, bicyclists, and other vulnerable road users. The City of Los Angeles has developed a High Injury Network (HIN) that identifies roadways having a high number of traffic collisions causing serious injury and death. Development projects proposed on a roadway identified as part of the City's HIN should be designed to enhance safety for non-motorized users. 3rd Street directly south of the Project site is classified as a HIN roadway. The proposed project will provide ingress and egress for vehicles through an alley located north of the Project and away from 3rd Street, thus reducing vehicle-pedestrian conflicts along 3rd Street and improving visibility for pedestrians along the roadway. By maintaining the existing sidewalks and infrastructure, the Project will not negatively affect the safety of pedestrians, bicycles, and other vulnerable roadway users along 3rd Street.

#### 4.1.6 CITYWIDE DESIGN GUIDELINES

The Los Angeles Department of City Planning established *Citywide Design Guidelines* meant to promote maintaining neighborhood character, quality design, and creative development solutions. Guidelines 1-3 provide best practices in the area of Pedestrian-First Design that are as follows:

- Guideline 1 is to promote a safe, comfortable, and accessible pedestrian experience for all.
- Guideline 2 is to carefully incorporate vehicular access such that it does not degrade the pedestrian experience.
- Guideline 3 is to design projects to actively engage with streets and public space and maintain human scale.

The Project's proposed pedestrian facilities provide sufficient pedestrian access at the first-floor residential and commercial entrances and along the 3rd Street and Flores Street sidewalks. In addition, the Project is proposing to provide pedestrian plazas connecting to the existing sidewalk which will activate the block as a pedestrian-friendly area. The proposed vehicular access driveway is located along the alley behind the site, which will limit the number of conflicting vehicles that will cross the pedestrian path of travel, reducing

the potential for dangerous pedestrian-vehicle conflicts. The Project is designed to present a street frontage along 3rd Street that has plenty of retail store fronts, pedestrian engagement, and open spaces areas. Therefore, the Project is compliant with the *Citywide Design Guidelines*.

#### **4.1.7 LOS ANGELES MUNICIPAL CODE**

The LAMC bicycle parking ordinance § 12.21 A.16 requires the provision of short-term bicycle parking spaces at a rate of 1 space per 10 units for the first 25 units of a residential development; 1 space per 15 units for units 26 through 100; and 1 space per 20 units for units 101 through 200. The LAMC requires the provision of residential long-term bicycle parking spaces at a rate of 1 space per unit for the first 25 units of a residential development; 1 space per 1.5 units for units 26 through 100; and 1 space per 2 units for units 101 through 200. For the commercial retail space, the LAMC requires the provision of both short-term and long-term bicycle parking at a rate of 1 space per 2,000 square feet of floor area, with a minimum of two spaces. Based on these rates, the Project would meet the LAMC bicycle parking requirements by providing at least 12 short-term (6 residential, 6 commercial) and 66 long-term bicycle stalls (60 residential, 6 commercial). The Project will provide a minimum of 12 short-term and 66 long-term bicycle spaces. The short-term bicycle parking spaces are to be located along the 3rd Street and Flores Street sidewalks fronting the Project. The long-term bicycle parking spaces are to be on Level 2 of the Project building, near the automobile parking. The Project will, therefore, provide convenient and adequate bicycle parking facilities.

The current TDM requirements (LAMC § 12.26J) outlines TDM measures that a development must implement and comply with which includes displaying mobility information, designating parking for carpool/vanpools, and providing bicycle parking. The Project will be in compliance with the Code. This includes reducing the parking supply, providing the required bicycle parking spaces, and incorporating affordable housing. It should be noted that the Project will feature reduced parking supply and bicycle parking as TDM strategies for the VMT analysis, as discussed in Section 4.2.

In reviewing the abovementioned LAMC requirements, the Project does not conflict with the bicycle, vehicle, or TDM policies. The Project compliance with the LAMC requirements is also addressed in the Plan Worksheet Section II.D.

#### **4.1.8 SCAG RTP/SCS**

The SCAG RTP/SCS balances future mobility and housing needs with economic, environmental, and public health goals in a long-term plan that are laid out for the period from 2020-2045. The Plan Worksheet Section II.E addresses whether or not a development project is consistent with regional plans such as the SCAG RTP/SCS. The Project is consistent with the SCAG RTP/SCS because the Project would not result in a significant VMT impact as detailed further in Section 4.2.

#### **4.1.9 WALKABILITY CHECKLIST**

The Los Angeles Department of City Planning's Walkability Checklist provides design strategies and guidelines for walkable streets. These documents promotes pedestrian-friendly features in the public right-of-way and on private property. The Department's Residential Citywide Design Guidelines for Multi-Family Residential & Commercial Mixed-Use Projects provide a blueprint for sustainable and aesthetically pleasing residential development. These documents promote the provision of pedestrian-friendly, street-fronting entrances to residential developments at surface grade. The Project frontage on 3rd Street and Flores Street

will provide multiple entrances to the Project's residential and commercial land uses for easy pedestrian-friendly access.

## 4.2 CAUSING SUBSTANTIAL VEHICLE MILES TRAVELED (THRESHOLD T-2.1)

As outlined in the Mobility Plan 2035, the City has a goal of reaching a 20 percent reduction in VMT by 2035. In line with these goals, the City has updated the TAG to ensure compliance with Section 15064.3, subdivision (b)(1) of the CEQA Guidelines, which asks if a development project would result in a substantial increase in VMT. The TAG sets the following criterion for determining significant transportation impacts based on VMT:

*For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?*

To assist in determining which development projects would conflict with CEQA Guidelines section 15064.3, subdivision (b)(1), the TAG establishes two screening criteria to evaluate whether further analysis is required of a land use project's VMT impact. Both of the following criteria must be met in order to require further analysis of a land use project's VMT contribution:

1. The land use project would generate a net increase of 250 or more daily vehicle trips.
2. The land use project would generate a net increase in daily VMT.

In addition, the TAG provides specific instructions for evaluating the VMT contributions of retail and restaurant uses. Should a land use project contain retail or restaurant components that are small-scale or local-serving in nature, the retail/restaurant portion of the land use project can be assumed not to result in a significant VMT impact. The retail/restaurant component of a land use project should be considered small-scale or local-serving if the total retail and restaurant square footage does not exceed 50,000 square feet. For a mixed-use development, if the retail/restaurant component does not exceed 50,000 square feet in floor area, that component can be considered to have a less-than-significant VMT impact; however, the remaining portions of the land use project are subject to further VMT analysis per the above screening criteria.

After the initial screening, the TAG provides guidance for further analysis of the VMT contribution of a land use project. Under the updated TAG, two forms of VMT are analyzed: (1) household VMT per capita and (2) work VMT per employee. The household VMT per capita is the home-based VMT produced by the residential component of a land use project divided by the number of residents within the development. The work VMT per employee is the home-based work VMT attracted by the non-residential uses of a land use project divided by the number of employees within the development. As outlined in the TAG, in order for a proposed land use project to have a less-than-significant VMT impact, two criteria must be met: (1) the land use project's household VMT per capita must be at least 15 percent below the average household VMT per capita, and (2) the land use project's work VMT per employee must be at least 15 percent below the average work VMT per employee. Table 1 shows the thresholds corresponding to 15 percent below the average household VMT per capita and average work VMT per employee. These thresholds have been determined individually for each of the seven Area Planning Commission (APC) areas comprising the City. The significance thresholds to be applied are determined based on the land use project's APC area, in this case the Central APC area.

**Table 1: LADOT Thresholds for Significant VMT Impacts**

<b>Area Planning Commission</b>	<b>Daily Household VMT per Capita</b>	<b>Daily Work VMT per Employee</b>
Central	6.0	7.6
East LA	7.2	12.7
Harbor	9.2	12.3
North Valley	9.2	15.0
South LA	6.0	11.6
South Valley	9.4	11.6
West LA	7.4	11.1

Along with the updated TAG, LADOT developed the VMT Calculator, which calculates the daily vehicle trips, daily VMT, daily household VMT per capita, and daily work VMT per employee for land use projects. The VMT Calculator utilizes average daily trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (9th Edition, 2012) and empirical trip generation data to determine the base daily trips associated with a land use project. The number of daily trips is further refined using data from the Environmental Protection Agency's (EPA's) Mixed-Use (MXD) Model and the City's Travel Demand Forecasting (TDF) Model.

The VMT Calculator also determines population and employment estimates for a land use project based on rates developed from U.S. Census data for the City of Los Angeles and employment data from a variety of sources, including the Los Angeles Unified School District and the San Diego Association of Governments (SANDAG). The VMT Calculator then uses trip length information from the TDF Model, in combination with the daily trips and population/employment estimates, to calculate the land use project's daily VMT, household VMT per capita, and work VMT per employee. The VMT Calculator also provides a menu of TDM strategies that can be implemented for a land use project, either as project features or mitigation measures, to reduce a project's daily vehicle trips and VMT. Further detail on the VMT Calculator can be found in the *City of Los Angeles VMT Calculator Documentation* (May 2020).

To determine whether the Project requires further VMT analysis, the Project's proposed land use data were input into the VMT Calculator. As shown in Appendix C, the proposed Project's components include the Housing (Multi-Family), Housing (Affordable Housing – Family), Retail (General Retail), Retail (Fast-Food Restaurant), and the Retail (Quality Restaurant) land uses. Although the Project site contained an active institutional building as recently as November 2022, no existing land use credit has been applied as a conservative measure. Appendix C contains a summary report of the VMT Calculator outputs, which include the number of daily trips, the anticipated number of residents, etc. As shown in Appendix C, using the VMT Calculator, Version 1.4 v143, the Project would generate 995 net daily vehicle trips and 6,916 net daily VMT per the screening analysis. As the Project would generate more than 250 net daily vehicle trips and would result in a net increase in daily VMT, the Project would meet both screening criteria and require further VMT analysis. It should be noted that, for the purposes of VMT screening per the TAG, Project features that qualify as TDM measures are excluded from the calculations.

The VMT Calculator was then utilized to determine household VMT per capita and work VMT per employee. The Project proposes to incorporate some of the TDM strategies listed in the VMT Calculator (allowable per the LAMC) as part of Project development. Therefore, certain Project design features were considered in the VMT calculations for the Project. The TDM measures included as Project features are:

1. Reduce Parking Supply: The LAMC, without consideration of parking reduction mechanisms, would require a total of 223 automobile parking spaces (§ 12.21 A.4). The Project proposes to provide a total of approximately 40 on-site automobile parking spaces, which represents a reduction of 183 automobile parking spaces from the amount required by direct application of the LAMC.
2. Include Bike Parking Per LAMC: The Project bicycle parking provisions meet the City bicycle requirements per the LAMC (§ 12.21 A.16).

With the abovementioned TDM strategies implemented as Project features, the Project is anticipated to generate 865 gross daily vehicle trips and 6,014 gross daily VMT. As shown in Appendix C, the VMT Calculator determined that the Project would generate a household VMT per capita of 4.1. As the commercial component of the Project is less than 50,000 square feet, the retail uses are considered to be local serving and would not result in a significant VMT impact. Thus, the work VMT per employee metrics were not calculated for the commercial uses. Since the Project is located within the Central APC area, the appropriate threshold of significance with which to compare the Project's household VMT estimate is 6.0 daily household VMT per capita, as shown previously in Table 1. Therefore, the Project is not expected to have a significant VMT impact based on its household VMT per capita. In addition, per guidance from the TAG, as a project with less-than-significant household VMT per capita and work VMT per employee impacts, the Project can be assumed not to have a cumulative impact related to VMT.

### 4.3 SUBSTANTIALLY INDUCING ADDITIONAL AUTOMOBILE TRAVEL (THRESHOLD T-2.2)

Transportation projects that contribute to increased vehicular capacity may contribute to inducing vehicular travel. The City has updated the TAG to ensure compliance with Section 15064.3, subdivision (b)(2) of the CEQA Guidelines, which gives the discretion to agencies to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. The TAG sets the following criteria for determining significant transportation impacts based on VMT for transportation projects:

*For a transportation project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(2)?*

Since the Project is not a transportation project, threshold T-2.2 does not apply.

### 4.4 SUBSTANTIALLY INCREASING HAZARDS DUE TO GEOMETRIC DESIGN FEATURE OR INCOMPATIBLE USE (THRESHOLD T-3)

In line with Vision Zero policies, the TAG seeks to identify any potential impacts that could arise due to roadway modifications proposed as part of a development project. These impacts include potential conflicts between motorists, bicyclists, and pedestrians, as well as increases in operational delays and vehicle queuing at development project driveways. Potential impacts would be determined based on the location of proposed driveways and the ability for motorists entering and exiting the project site to identify conflicting

vehicular, pedestrian, and bicycle traffic. Therefore, the TAG has established the following threshold to determine if a development project would result in a significant impact based on the creation of roadway hazards:

*Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The TAG also establishes two screening criteria to assist in determining which development projects would potentially result in impacts due to geometric design hazards or incompatible uses. If either of the following conditions is present for a proposed development project, then further analysis of the potential hazards is required:

1. The land use project proposes new driveways, or introduces new vehicular access to the property from the public right-of-way.
2. The land use project proposes, or is required, to make modifications to the public right-of-way (i.e., street dedications, reconfigurations of curb line, etc.).

The Project proposes to install one new driveway on the alley behind the site and eliminate an existing driveway along Flores Street. The new driveway will intersect the alley at a right angle and will provide adequate sight distance in order to identify conflicting vehicular, pedestrian, and bicycle traffic. The only modification to Flores Street will be the elimination of the existing driveway. As the Project will replace a driveway on a Local Street with a driveway on a lower-classification alley, this will reduce the potential for vehicle-pedestrian and vehicle-bicycle conflicts. No modifications to the public right-of-way are proposed for 3rd Street.

Based on this assessment, the Project is not anticipated to have a significant impact related to geometric design feature of incompatible use hazards. The Project is not expected to contribute to a significant cumulative hazard impact since the access to adjacent properties would not be altered by the construction of the Project or other developments.

## 5. NON-CEQA TRANSPORTATION ANALYSIS

In addition to the analysis required under the revised CEQA Guidelines, the LADOT has outlined four additional analysis areas that should be reviewed for proposed development projects. This section outlines the methodologies applied for and the results of these four analyses.

### 5.1 PEDESTRIAN, BICYCLE, AND TRANSIT ACCESS ASSESSMENT

Per the updated TAG, a development project must evaluate the potential negative effects on the pedestrian, bicycle, and transit facilities that surround the site. These effects can include either the removal or degradation of existing facilities, or the increasing of demand on inadequate facilities. The TAG has established the following three screening criteria, all of which all must be met to require further analysis regarding a development project's effect on the pedestrian, bicycle, and transit networks:

1. The land use project involves a discretionary action that would be under review by the Department of City Planning.
2. The land use project would include the construction or addition of either of the following: (1) 50 or more dwelling units, guest rooms, or combination thereof; or (2) 50,000 or more square feet of non-residential space.
3. The land use project would generate a net increase of 1,000 or more daily vehicle trips; or the project has frontage along an Avenue, Boulevard, or Collector of 250 or more linear feet; or the project has frontage spanning an entire block along a roadway designated as an Avenue or Boulevard.

As described previously, the Project proposes a total of 77 multifamily residential dwelling units, 8 of which will be reserved for affordable housing, and 12,000 square feet of ground-floor commercial space. These uses will generate, per the VMT Calculator, 995 net daily vehicle trips without consideration of the Project features that qualify as TDM measures. The Project will also have less than 200 linear feet of frontage along 3rd Street (an Avenue II). Since the Project does not meet all of the three screening criteria, no further access is required. The Project is not anticipated to have an adverse effect on the pedestrian, bicycle, and transit facilities surrounding the Project site. While no further analysis is required, an overview of the Project study area pedestrian destinations has been provided in Figure 4.

### 5.2 PROJECT ACCESS, SAFETY, AND CIRCULATION EVALUATION

The TAG requires development projects to evaluate potential operational and capacity constraints related to access to and egress from the project site. These constraints are typically affected by the configuration and placement of driveways, location of nearby bicycle and pedestrian facilities, and design of access points. The TAG has established the following two screening criteria, both of which must be met to require further analysis of potential operational and capacity constraints:

1. The land use project involves a discretionary action that would be under review by the Department of City Planning.
2. The land use project would generate a net increase of 500 or more daily vehicle trips.





- Project Site
- Study Intersection
- Quarter-Mile Radius

**Area Destinations**

- Grocery Store
- Medical Office
- Retail/Restaurant

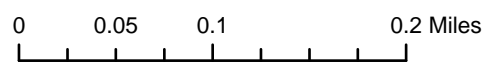


FIGURE 4

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The Project will meet both of the screening criteria as it will require a discretionary action under the Department of City Planning and it will generate a net increase of 500 or more daily vehicles trips (Project will generate 995 net daily vehicle trips). Therefore, further analysis is required to be conducted of potential access and circulation constraints of the Project site. Per the TAG, operational and passenger loading evaluations have been conducted to determine the Project's effects on adjacent roadway travel. These evaluations are detailed in the sections below.

### 5.2.1 OPERATIONAL EVALUATION

To determine the effects of the Project on the operation of vehicular travel within the immediate Project vicinity, an evaluation was conducted to determine the Project's contribution to delay and queuing at intersections adjacent to the Project under existing and future conditions. A Project completion year of 2027 is anticipated and is assumed in the analysis. In consultation with the LADOT, the following site-adjacent and nearby study intersections were selected for the analysis of potentially negative Project traffic effects:

1. 3rd Street & Kings Road (unsignalized)
2. 3rd Street & Flores Street (unsignalized)

The study locations were shown previously in Figure 1.

### 5.2.2 ANALYSIS METHODOLOGY

This section outlines the results of the delay and queuing analysis for Existing (2023) and Future (2027) conditions during the weekday AM and PM peak hours. This analysis was conducted in accordance with the methodology outlined in the TAG. An analysis of existing and future weekday AM and PM peak-hour traffic conditions at the study intersections, listed above, was performed through the use of established traffic engineering techniques. Two methodologies were used to determine the traffic operations at the study intersections. The analyses for both methodologies were undertaken using Trafficware's Synchro Studio, which includes both Synchro and SimTraffic software, to model the traffic operations at the study intersections.

The first methodology used to analyze and evaluate traffic operations at the study intersections is based on procedures outlined in the *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis* (HCM). The HCM methodology determines intersection LOS based on operational vehicle delay. For unsignalized, two-way stop controlled intersections, the operational delay corresponds to the delay for the stop-controlled movements. The term LOS describes the quality of traffic flow. LOS values of A through C indicate excellent-to-decent traffic flow conditions. LOS D corresponds with fair conditions that may experience substantial delay during portions of the peak hours, but without excessive backups. LOS E represents poor conditions, with volumes at or near the capacity of the intersection and long lines of vehicles that may have to wait through several signal cycles. LOS F is characteristic of failure (i.e., the intersection is overloaded, vehicular movements may be restricted or prevented, and delays and vehicle queues become increasingly longer). The LOS ranges for the HCM methodology are shown in Tables 2 and 3 for signalized and unsignalized intersections, respectively.

**Table 2: HCM LOS & Delay for Signalized Intersections**

<u>LOS</u>	<u>Delay (seconds/vehicle)</u>		
A	<=	10.0	
B	>	10.0	<= 20.0
C	>	20.0	<= 35.0
D	>	35.0	<= 55.0
E	>	55.0	<= 80.0
F	>	80.0	

Source: *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis*, Exhibit 19-8 for signalized intersections.

**Table 3: HCM LOS & Delay for Two-Way and All-Way Stop-Controlled Intersections**

<u>LOS</u>	<u>Delay (seconds/vehicle)</u>		
A	<=	10.0	
B	>	10.0	<= 15.0
C	>	15.0	<= 25.0
D	>	25.0	<= 35.0
E	>	35.0	<= 50.0
F	>	50.0	

Source: *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis*, Exhibit 20-2 for two-way STOP-controlled intersections and Exhibit 21-8 for all-way STOP-controlled intersections.

The second methodology consisted of a Synchro queuing analysis in order to evaluate potential issues associated with queued vehicles entering or exiting the Project site. A Synchro traffic model was constructed to model the two study intersections. Queuing conditions at the study intersections were evaluated to identify potential queuing issues associated with "gridlock" congestion. Gridlock refers to the traffic condition where queues from a congested intersection impede traffic flow through upstream intersections. Additionally, the left-turn queues at the study intersections were analyzed specifically to determine whether vehicles would spillover from the left-turn pockets or center two-way left-turn lane into adjacent through traffic lanes.

Per the TAG, access constraints can be related to extensive queuing or operational delays. For this reason, results from the quantitative delay-based and queuing analyses were evaluated in combination to determine whether the Project would have an adverse effect on the operations of Project-adjacent vehicular facilities. Adverse impacts were determined when the results of these analyses demonstrated considerable increases in vehicular delay and queuing associated with the addition of Project traffic.

### 5.2.3 EXISTING (2023) TRAFFIC VOLUMES

Traffic volumes for existing conditions at the study intersections were obtained from manual traffic counts conducted on May 25, 2023, when local schools were in session. In accordance with updated TAG, the traffic counts conducted for this study cover the weekday morning and afternoon peak commute periods. Peak-hour volumes were determined individually for each intersection based on the combined four (4) highest consecutive 15-minute volumes for all vehicular movements at the intersection. Weekday AM and PM peak-

hour volumes at the study intersections are illustrated in Figures 5(a) and 5(b), respectively. The manual intersection traffic volume count data sheets are provided in Appendix D.

A number of traffic improvements have been implemented in the study area in recent years to make more efficient and effective use of the existing street system. Many of the signalized intersections in the Project vicinity are operating under the City's Adaptive Traffic Control System (ATCS) and Automated Traffic Surveillance and Control (ATSAC) System. ATCS/ATSAC is a highly sophisticated computerized system that continually monitors traffic demand at signalized intersections within the system and modifies traffic signal timing in real time to maximize capacity and decrease overall delay. Although many surrounding signalized intersections in the Project area are ATCS/ATSAC system controlled, the study intersections consist solely of unsignalized intersections.

Information pertaining to intersection characteristics, such as geometrics, traffic signal operations, and on-street parking restrictions were obtained from field checks and City engineering plans. The existing lane configuration and traffic control conditions for two study intersections are illustrated in Appendix E.

#### **5.2.4 PROJECT TRAFFIC**

The following section describes the methodology used to determine the Project vehicle trip generation, distribution, and assignment.

##### *Trip Generation*

Per the approved TA MOU signed by LADOT staff on June 22, 2023 and included as Appendix A to this report, the ITE *Trip Generation Manual* (11th Edition, 2021) was used to develop the traffic characteristics of the Project's proposed uses. The trip generation equations, rates, and directional distributions in the ITE manual are nationally recognized and are used as the basis for most transportation-related studies conducted in the City and the surrounding region. Information was obtained from the *Trip Generation Manual* for ITE Land Use Code (LUC) 221 – Multifamily Housing (Mid-Rise), LUC 822 – Strip Retail Plaza (<40k), LUC 931 – Fine Dining, and LUC 936 – Coffee/Donut Shop without Drive-Through Window. In addition, the LADOT has developed weekday daily and peak-hour trip generation rates for affordable housing units from a survey of affordable housing sites performed within the City in 2016. Rates from these sources were applied to develop the Project's trip generation estimates. Table 4 presents the trip generation rates used to generate the weekday peak-hour traffic volumes for the Project.

For this analysis, since the VMT Calculator does not calculate weekday AM or PM peak-hour trip generation estimates, the ITE *Trip Generation Manual* and LADOT survey-based trip generation rates provided in Table 4 were used to determine the weekday AM peak-hour and PM peak-hour vehicle trips anticipated for the Project. As these rates do not account for such trip-reducing factors as significant transit usage and/or walk-trip potential, the baseline vehicle trip estimates reflect a conservative condition. These trip-reducing factors are important considerations in determining the actual traffic-generating characteristics of a development project and, therefore, adjustments were made to the baseline trip generation estimates to develop the Project's vehicle trips. All adjustment have been approved by LADOT staff in the MOU signed on June 22, 2023 and included as Appendix A of this report.



FIGURE 5(a)

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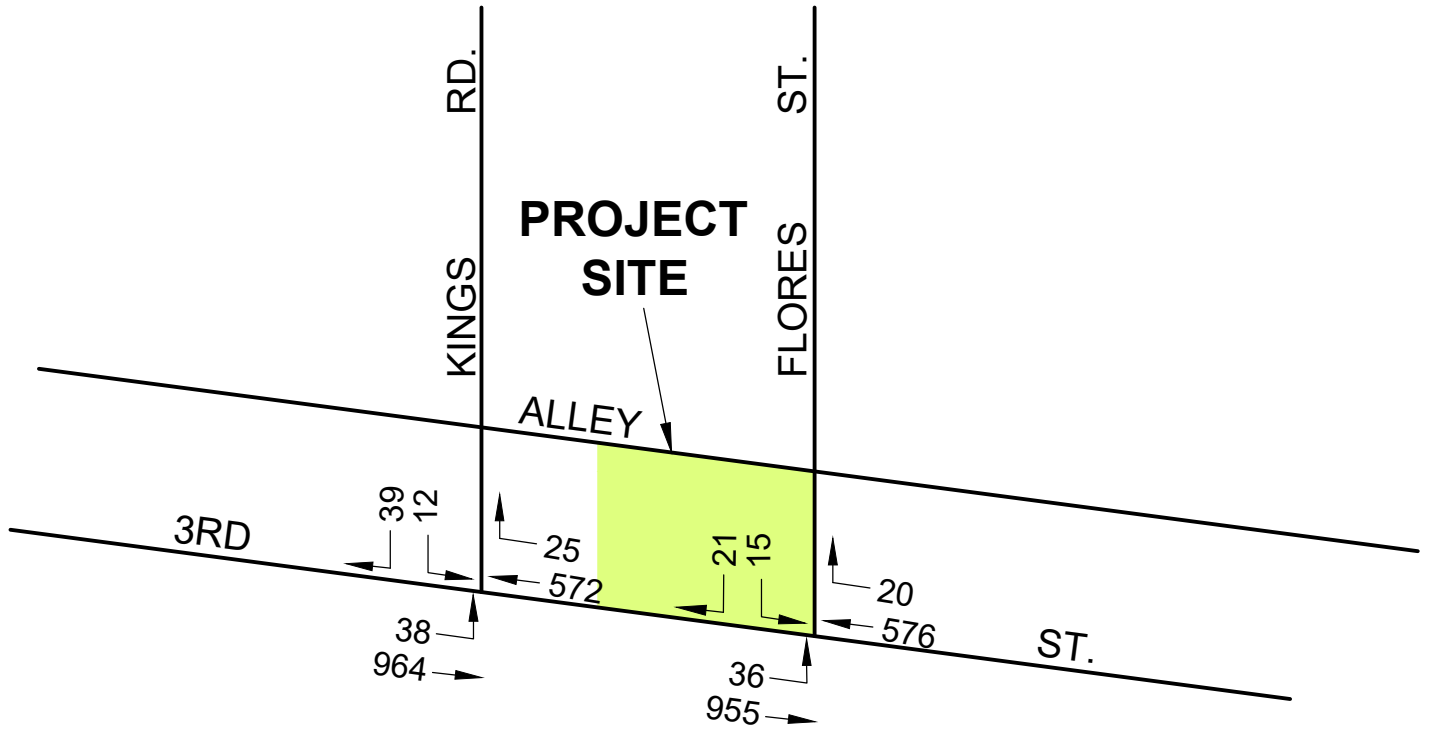


FIGURE 5(b)

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**Table 4: Project Weekday Trip Generation Rates**Multifamily Housing (Mid-Rise), ITE LUC 221 – General Urban/Suburban (Not Close to Rail Transit) setting<sup>1</sup>

Daily:	T = 4.54 trips per dwelling unit
AM Peak Hour:	T = 0.37 trips per dwelling unit; IB = 23%, OB = 77%
PM Peak Hour:	T = 0.39 trips per dwelling unit; IB = 61%, OB = 39%

Strip Retail Plaza (<40k), ITE LUC 822 – General Urban/Suburban<sup>1</sup>

Daily:	T = 54.45 trips per 1,000 square feet
AM Peak Hour:	T = 2.36 trips per 1,000 square feet; IB = 60%, OB = 40%
PM Peak Hour:	T = 6.59 trips per 1,000 square feet; IB = 50%, OB = 50%

Affordable Housing (Family) – Average setting<sup>2</sup>

Daily:	T = 4.16 trips per dwelling unit
AM Peak Hour:	T = 0.52 trips per dwelling unit; IB = 38%, OB = 62%
PM Peak Hour:	T = 0.38 trips per dwelling unit; IB = 55%, OB = 45%

Fine Dining Restaurant, ITE LUC 931 – General Urban/Suburban setting<sup>1</sup>

Daily:	T = 83.84 trips per 1,000 square feet
AM Peak Hour:	T = 0.73 trips per 1,000 square feet; IB = 80%, OB = 20%
PM Peak Hour:	T = 7.80 trips per 1,000 square feet; IB = 67%, OB = 33%

Coffee/Donut Shop without Drive-Through Window, ITE LUC 936 – General Urban/Suburban setting<sup>1</sup>

Daily:	T = 535.71 trips per 1,000 square feet
AM Peak Hour:	T = 93.08 trips per 1,000 square feet; IB = 51%, OB = 49%
PM Peak Hour:	T = 32.39 trips per 1,000 square feet; IB = 50%, OB = 50%

Notes:<sup>1</sup> Source: Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021).<sup>2</sup> Source: Los Angeles Department of Transportation (LADOT) *Transportation Assessment Guidelines* (August 2022).  
IB = Inbound; OB = Outbound.

Given the mix of proposed uses on the Project site, it is expected that there would be trip interactions between individual uses that would not require the use of a vehicle. It is generally recognized that residents, visitors, employees, and patrons of a site will utilize other on-site uses if they are conveniently located and/or provide useful services or amenities, with the level of interaction dependent upon the number of residents, visitors, employees, and patrons; service providers; accessibility; and other factors. For the Project, some of the residents would be expected to patronize the on-site commercial retail and restaurant uses. Thus, a reduction in trips between the residential and commercial use components would be expected. As recommended in the ITE *Trip Generation Handbook* (3rd Edition, 2017) and the TAG, the methodology outlined in the NCHRP Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments was used to estimate internal trip capture between Project land use components. The internal capture methodology and calculations are and included as Appendix F of this report.

The use of public transportation is an important consideration in the evaluation of a project's trip-generating potential. As noted previously in the Existing Public Transit section of this report, the Project is well served by multiple bus lines. These local and regional routes are readily accessible to Project residents, patrons, employees, and visitors. Significant transit use is not accounted for in the ITE *Trip Generation Manual* General Urban/Suburban setting trip rates and equations. Because the trip rates for the General

Urban/Suburban setting do not consider significant transit connectivity, adjustments were made to the Project trip generation to account for transit usage associated with the proposed land uses. The NCHRP Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments was also used to estimate the transit and non-motorized trip generation for each of the proposed Project land uses. The transit and non-motorized mode split assumptions were obtained from the LADOT TDF model.

Trip reduction factors for the Project also account for the presence of “pass-by” trips. As some motorists pass by the Project, the specific convenient facilities provided by the Project (or other factors) produce a stop at the site. Such activity is considered to be an interim stop along a trip which existed irrespective of the development of the Project and, therefore, vehicles making these stops are not considered to be newly generated Project-related traffic. The LADOT has developed a series of recommended pass-by trip reduction percentages for various development types and sizes. In line with these guidelines, pass-by trip reductions were applied to the Project’s proposed commercial retail and restaurant uses.

The trip generation rates and aforementioned adjustment factors were employed to derive Project vehicle trip projections. Table 5 summarizes the trip generation estimates for the Project. As shown in Table 5, once completed and occupied, the Project is anticipated to generate a total of 87 net vehicle trips during the AM peak hour (41 inbound, 46 outbound) and 64 net trips during the PM peak hour (38 inbound, 26 outbound). These peak-hour trips were distributed to the two study intersections for the Project impact analysis. The Project pass-by trips, including 67 pass-by trips during the AM peak hour (33 inbound, 34 outbound) and 26 pass-by trips during the PM peak hour (15 inbound, 11 outbound), were developed for the study area based on the volume of traffic passing adjacent to the site along 3rd Street and Flores Street during the peak hours.

#### Trip Distribution and Assignment

Estimation of the directional distribution of Project trips was the next step in the analytical process. The primary factors affecting the trip distribution patterns are the nature of the Project uses, existing traffic patterns, characteristics of the surrounding roadway system, geographic location of the Project site and its proximity to freeways and major travel routes, residential areas from which employees would likely be drawn, employment centers which would likely attract residents, and other various regions generating visitors and patrons. Based on these factors, the overall Project directional trip distribution percentages were determined and are summarized in Table 6.

The general distribution percentages shown in Table 6 were then disaggregated and assigned to specific routes and intersections within the study area (and the Project driveway) that are expected to be used for Project access/egress. The Project’s trip distribution percentages for the Project’s residential and commercial components are presented in Figures 6(a) and 6(b), respectively. These percentages are reflective of the trip distribution percentages expected for non-pass-by trips.

Applying these inbound and outbound percentages to the non-pass-by Project trip generation estimates calculated in Table 5, the Project’s non-pass-by traffic volumes at the two study intersections were determined for the weekday AM and PM peak hours. The Project residential uses weekday AM and PM peak-hour traffic volumes are depicted in Figures 7(a) and 7(b), respectively. The Project commercial uses weekday AM and PM peak-hour traffic volumes (non-pass-by) are illustrated in Figures 8(a) and 8(b), respectively.

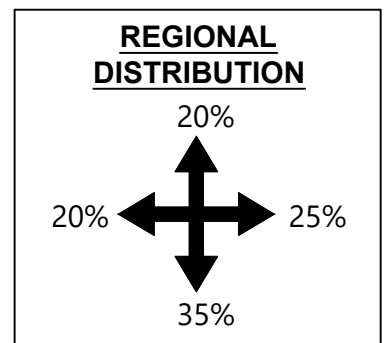


**Table 5: Project Weekday Trip Generation Summary**

Land Use	ITE Code	Intensity <sup>2</sup>	Average Weekday	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
<b>Trip Generation Rates</b>									
Multifamily Housing (Mid-Rise)	221	1 du	4.54	23%	77%	0.37	61%	39%	0.39
Strip Retail Plaza (<40k)	822	1 ksf	54.45	60%	40%	2.36	50%	50%	6.59
Fine Dining Restaurant	931	1 ksf	83.84	80%	20%	0.73	67%	33%	7.80
Coffee/Donut Shop without Drive-Through Window	936	1 ksf	535.71	51%	49%	93.08	50%	50%	32.29
Affordable Housing - Family (LADOT)	--	1 du	4.16	38%	62%	0.52	55%	45%	0.38
<b>Trip Generation Summary</b>									
Description	Size	Average Weekday <sup>7</sup>	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
<b>Proposed Uses</b>									
<b>Residential</b>									
Multifamily Housing (Mid-Rise) Baseline Vehicle Trips	69 du	313	6	20	26	16	11	27	
Affordable Housing (Family) Baseline Vehicle Trips	8 du	33	2	2	4	2	1	3	
Residential Total Baseline Vehicle Trips	77 du	346	8	22	30	18	12	30	
Residential Person Trips <sup>3</sup>		611	14	39	53	32	21	53	
Residential Internal Person Trips <sup>4</sup>		150	1	8	9	11	6	17	
Residential External Person Trips <sup>4</sup>		461	13	31	44	21	15	36	
Residential External Trips by Vehicle (including pass-by trips) <sup>4</sup>		179	5	12	17	8	6	14	
Residential External Trips by Transit <sup>4</sup>		29	1	2	3	1	1	2	
Residential External Trips by Walk/Bicycle <sup>4</sup>		104	3	7	10	5	3	8	
Residential External Trips by Vehicle (with pass-by trip adjustment) <sup>5</sup>		179	5	12	17	8	6	14	
<b>Commercial</b>									
Strip Retail Plaza (<40k)	4,000 sf	218	5	4	9	13	13	26	
Retail Total Person Trips <sup>3</sup>		387	9	7	16	23	23	46	
Retail Total Internal Person Trips <sup>4</sup>		181	1	1	2	14	13	27	
Retail Total External Person Trips <sup>4</sup>		206	8	6	14	9	10	19	
Retail External Trips by Vehicle (including pass-by trips) <sup>4</sup>		87	3	3	6	4	4	8	
Retail External Trips by Transit <sup>4</sup>		6	0	0	0	0	1	1	
Retail External Trips by Walk/Bicycle <sup>4</sup>		44	2	1	3	2	2	4	
Retail External Trips by Vehicle (with pass-by trip adjustment) <sup>6</sup>		44	2	1	3	2	2	4	
Fine Dining Restaurant	6,000 ksf	503	3	1	4	31	16	47	
Coffee/Donut Shop without Drive-Through Window	2,000 ksf	1,071	95	91	186	33	32	65	
Restaurant Total Baseline Vehicle Trips	8,000 ksf	1,574	98	92	190	64	48	112	
Restaurant Total Person Trips <sup>3</sup>		2,799	174	164	338	114	85	199	
Restaurant Total Internal Person Trips <sup>4</sup>		203	9	2	11	11	17	28	
Restaurant Total External Person Trips <sup>4</sup>		2,596	165	162	327	103	68	171	
Restaurant External Trips by Vehicle (including pass-by trips) <sup>4</sup>		1,037	66	65	131	41	27	68	
Restaurant External Trips by Transit <sup>4</sup>		146	9	9	18	6	4	10	
Restaurant External Trips by Walk/Bicycle <sup>4</sup>		599	38	37	75	24	16	40	
Restaurant External Trips by Vehicle (with pass-by trip adjustment) <sup>6</sup>		653	34	33	67	28	18	46	
<b>Proposed Project Total External Trips by Vehicle (including Pass-By Trips)</b>		<b>1,303</b>	<b>74</b>	<b>80</b>	<b>154</b>	<b>53</b>	<b>37</b>	<b>90</b>	
<b>Proposed Project Total External Trips by Vehicle</b>		<b>876</b>	<b>41</b>	<b>46</b>	<b>87</b>	<b>38</b>	<b>26</b>	<b>64</b>	

Notes:

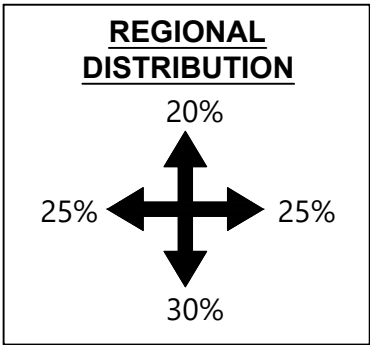
- ITE *Trip Generation Manual* (11th Edition, 2021) trip generation rates and directional distributions applied for Land Use Codes (LUC) 221 (Multifamily Housing [Mid-Rise]), 822 (Strip Retail Plaza [<40k]), 931 (Fine Dining Restaurant), 936 (Coffee/Donut Shop without Drive-Through Window) to develop baseline vehicle trips for each proposed land use. LUC 931 does not include directional distribution for the AM peak hour of adjacent street traffic; the directional distribution for the AM peak hour of the generator was assumed. LUC 936 does not have a daily trip rate. As such, a Daily-to-(AM+PM peak hour) factor was developed using LUC 937 (Coffee/Donut Shop with Drive-Through Window) and applied to the AM+PM trip rate to develop a daily trip rate for LUC 936. The General Urban/Suburban setting was used as it best represents the project location. The "Not Close to Rail Transit" land use subcategory was chosen for LUC 222 due to the lack of rail transit in the project vicinity. Trip generation rates and directional distributions for the affordable housing dwelling units were provided in the LADOT *Transportation Assessment Guidelines* (August 2022). Rates were selected for "Average" and "Family" affordable housing types to provide more conservative trip estimates. As the ITE General Urban/Suburban and LADOT affordable housing trip generation rates do not account for internal capture or substantial alternative mode usage, further adjustments were applied to the baseline vehicle trip calculations.  
  
The ITE *Trip Generation Handbook* (3rd Edition, 2017) recommended methodology for estimating the trip generation of a mixed-use development was utilized for the project. The ITE methodology follows the recommended procedures from the National Cooperative Highway Research Program (NCHRP) Report 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments* (Transportation Research Board, 2011). The NCHRP 684 Internal Trip Capture Estimation Tool spreadsheet provided on the ITE website was used, with worksheets attached on the following pages for the proposed uses.
- du = Dwelling Units; ksf = Thousands of Square Feet of Gross Leasable Floor Area or Gross Floor Area.
- See attached Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends and Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends from the NCHRP 684 Internal Trip Capture Estimation Tool for the proposed project uses.
- See attached Table 9-A (D): Internal and External Trips Summary (Entering Trips), Table 9-A (O): Internal and External Trips Summary (Exiting Trips), Table 9-P (D): Internal and External Trips Summary (Entering Trips), and Table 9-P (O): Internal and External Trips Summary (Exiting Trips) from the NCHRP 684 Internal Trip Capture Estimation Tool for the proposed project uses.
- No pass-by trips assumed for the proposed residential land use component.
- Per Attachment J of the LADOT *Transportation Assessment Guidelines* (August 2022), an average pass-by trip discount rate of 50 percent was applied for the proposed retail component (as it is less than 50,000 square feet). For the proposed fine dining and coffee shop components, Attachment J recommends pass-by trip discounts of 10 percent and 50 percent, respectively. As the trips associated with the two restaurant uses were combined as part of the internal trip capture estimation, the pass-by trip discount rates were blended for each analysis time period based on the proportion of trips from each component restaurant use. For example, in the AM peak hour, with 186 coffee shop trips (at 50 percent) and 4 fine dining trips (at 10 percent) summing to 190 baseline restaurant vehicle trips, the blended average is approximately 49 percent. The blended pass-by discount rates were 37 percent and 33 percent for the weekday daily and PM peak-hour periods, respectively.
- The ITE *Trip Generation Handbook* provides no guidance for estimating daily trips for mixed-use developments. Therefore, daily trips for each land use's subcategory (person trips, internal person trips, external person trips, external trips by mode) were estimated by developing a Daily-to-(AM+PM peak hour) factor using the land use's baseline vehicle trips and then applying this factor to each subcategory's combined (AM+PM) peak-hour trips. For commercial land uses with pass-by adjustments, the daily external trips by vehicle (with pass-by trip adjustment) were determined by applying the appropriate pass-by adjustment to the daily external trips by vehicle (including pass-by trips).



**LEGEND:**  
 XX% - INBOUND PERCENTAGE  
 (XX%) - OUTBOUND PERCENTAGE

FIGURE 6(a)

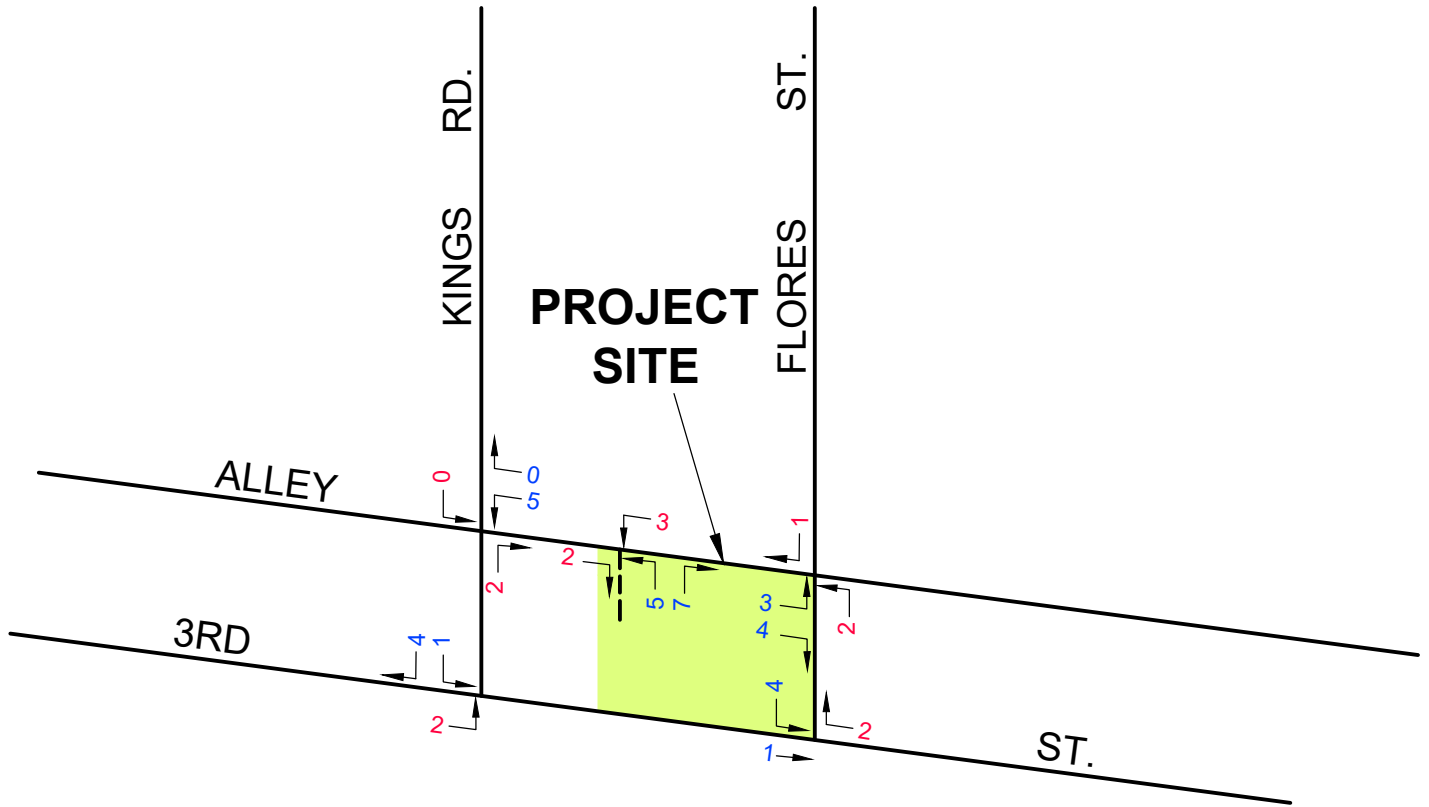
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**LEGEND:**  
 XX% - INBOUND PERCENTAGE  
 (XX%) - OUTBOUND PERCENTAGE

FIGURE 6(b)

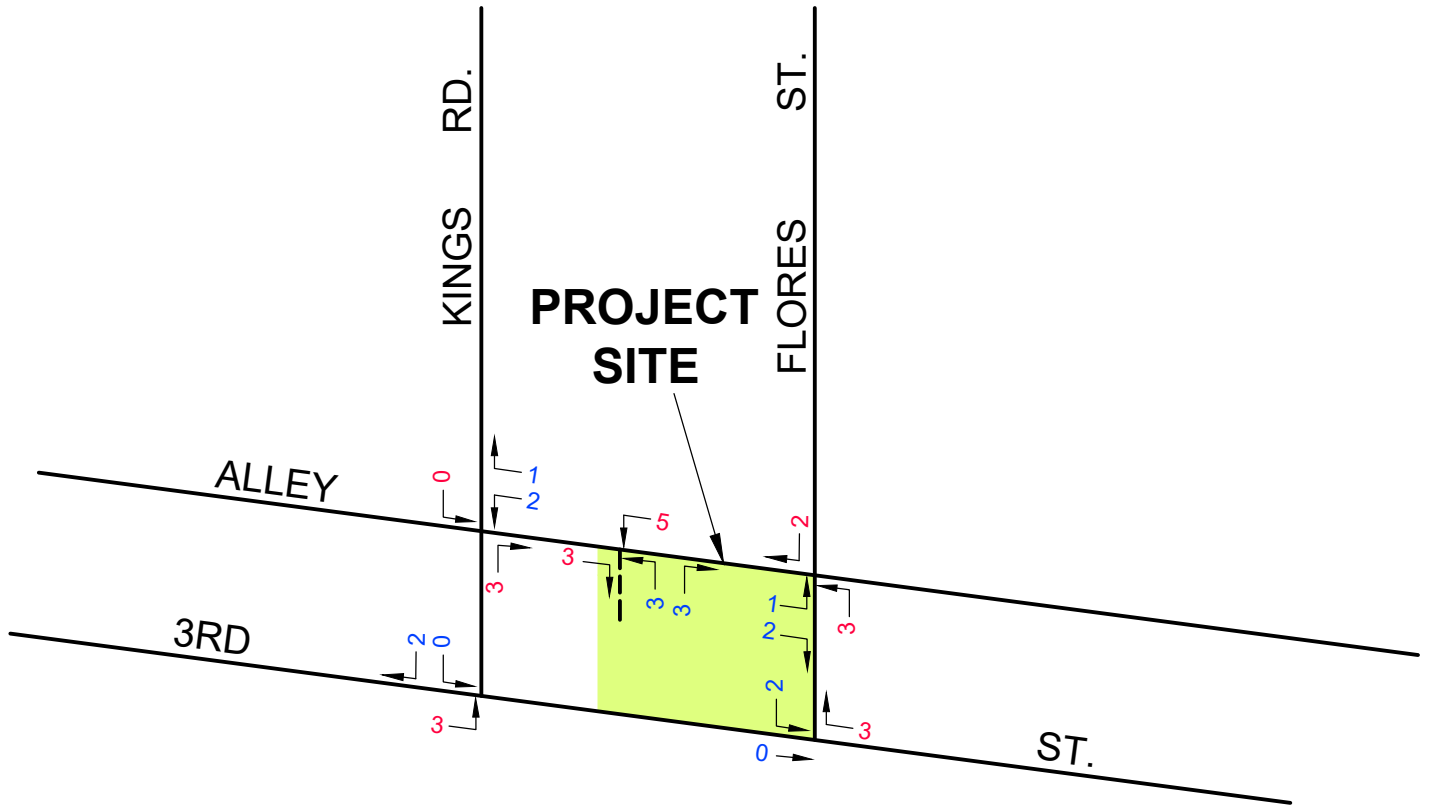
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LEGEND:	
XX	INBOUND TRIP
XX	OUTBOUND TRIP

FIGURE 7(a)

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LEGEND:	
XX	INBOUND TRIP
XX	OUTBOUND TRIP

FIGURE 7(b)

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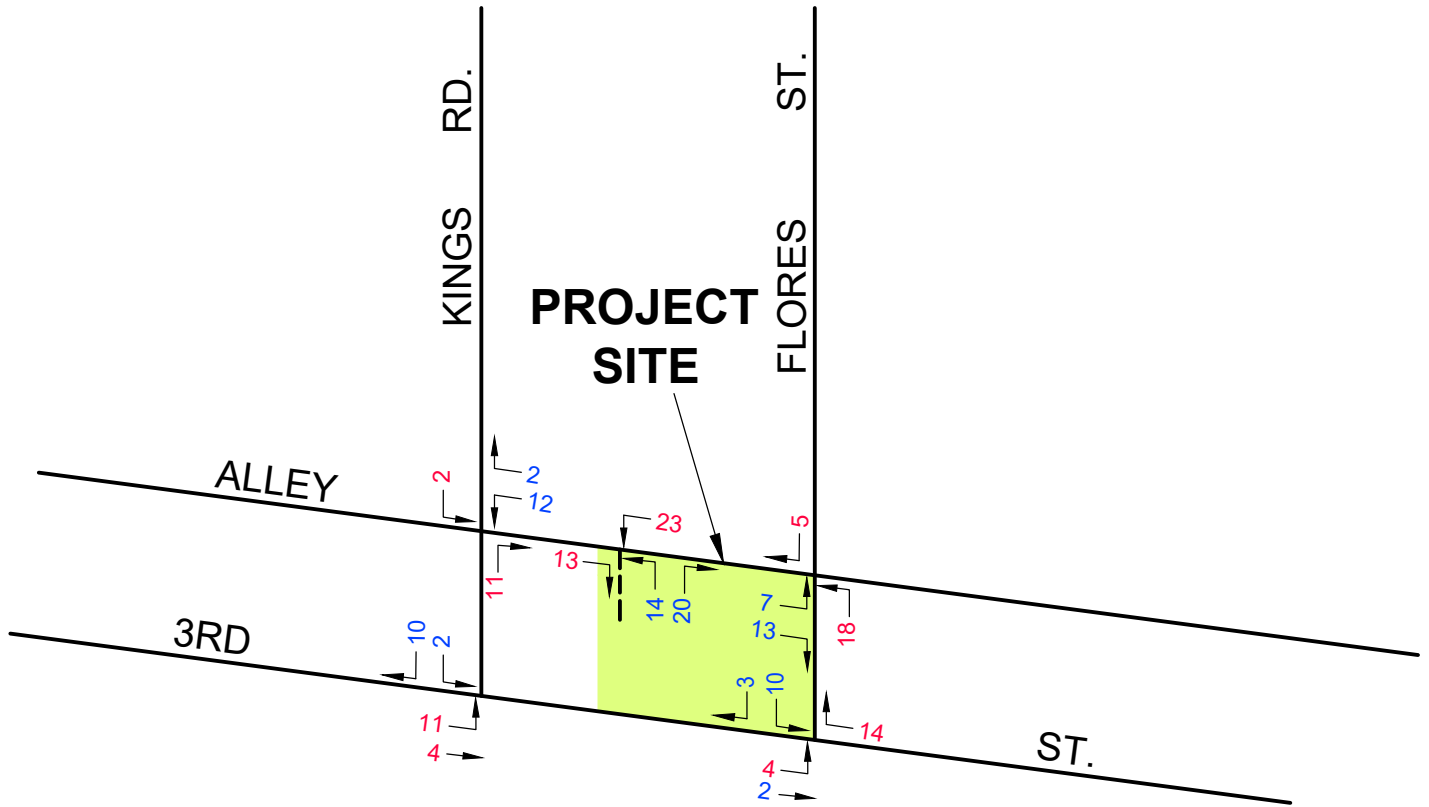
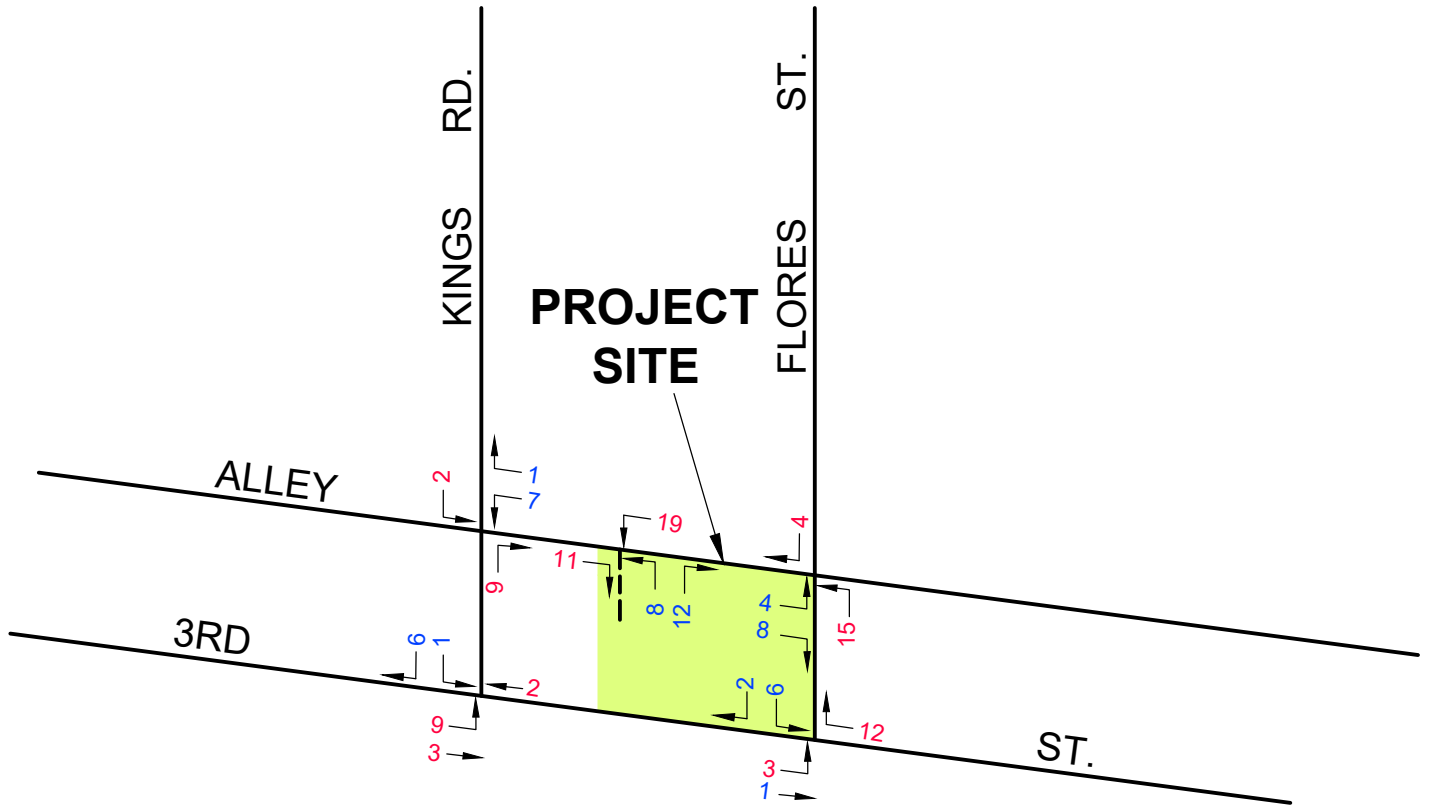


FIGURE 8(a)

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LEGEND:	
XX	INBOUND TRIP
XX	OUTBOUND TRIP

FIGURE 8(b)

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**Table 6: Project Directional Trip Distribution Percentages**

<b>RESIDENTIAL USES:</b>		<b>COMMERCIAL USES:</b>	
<b>Direction</b>	<b>Percentage</b>	<b>Direction</b>	<b>Percentage</b>
North	20%	North	20%
South	35%	South	30%
East	25%	East	25%
West	20%	West	25%

As described previously, the Project's commercial uses pass-by trips were developed based on the volume of traffic passing adjacent to the site along 3rd Street and Flores Street during the weekday AM and PM peak hours (see 3rd Street & Flores Street intersection traffic count in Appendix D). Given the difference in volume directionality (higher westbound traffic flow on 3rd Street in the AM peak hour, higher eastbound traffic flow on 3rd Street in the PM peak hour, etc.), separate pass-by distributions were created for each peak hour. The Project commercial uses weekday AM and PM peak-hour traffic volumes (pass-by) are depicted in Figures 9(a) and 9(b), respectively. Summing the residential, commercial non-pass-by, and commercial pass-by traffic volumes, the Project total vehicle trips for the weekday AM and PM peak-hours are shown in Figures 10(a) and 10(b), respectively.

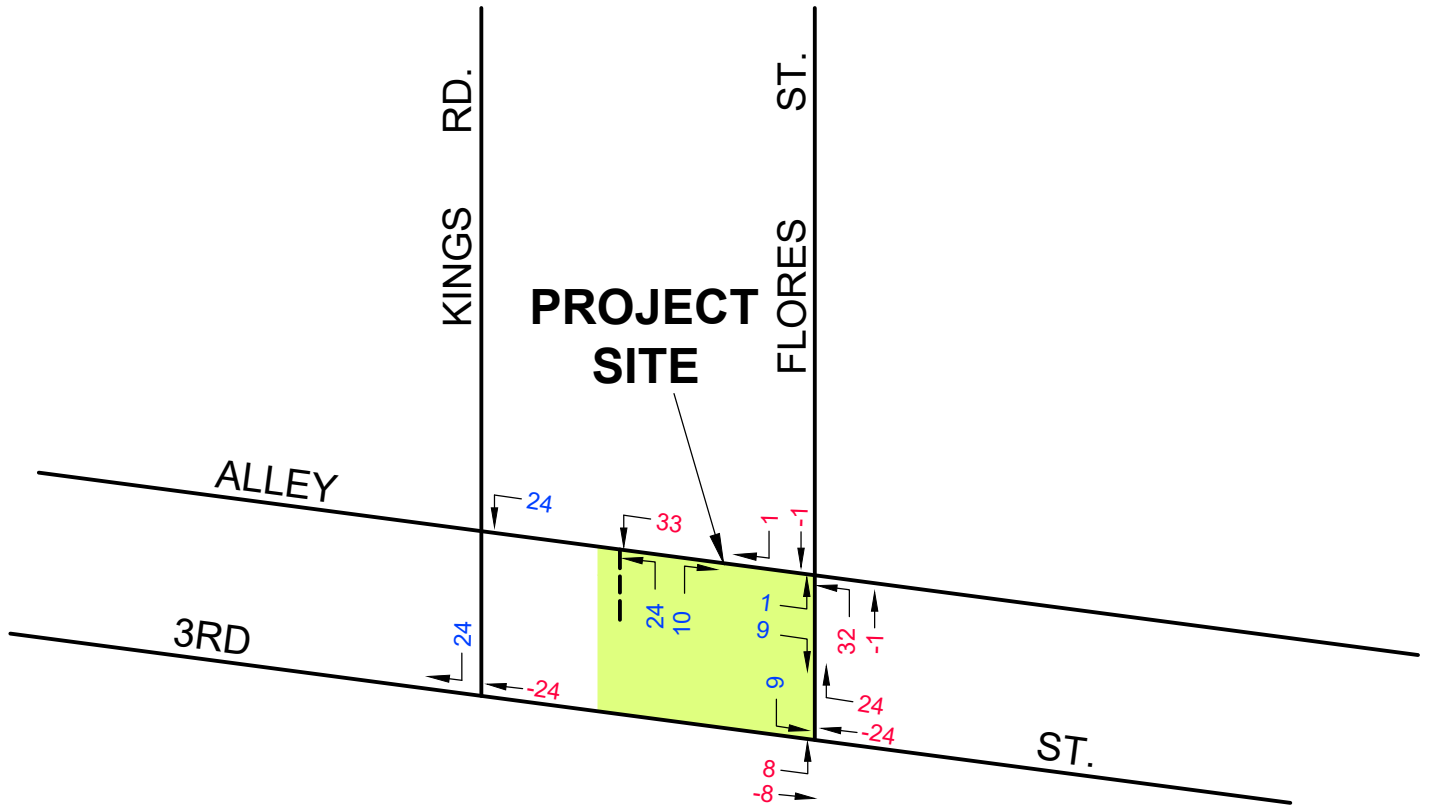
### 5.2.5 EXISTING (2023) AND EXISTING (2023) PLUS PROJECT CONDITIONS

The analysis of existing traffic conditions at the study intersections for existing year (2023) was performed using the two methodologies described previously. The Existing (2023) intersection traffic volumes for the weekday AM and PM peak hours were shown previously in Figures 5(a) and 5(b), respectively. These estimates are the "benchmark" volumes used in determining the Project effects on queuing and delay conditions for the surrounding roadway system.

The Existing (2023) Plus Project traffic volumes were determined by superimposing the Project traffic volumes onto the Existing (2023) traffic volumes. The Existing (2023) Plus Project traffic volumes at the study intersections are shown in Figures 11(a) and 11(b) for the weekday AM and PM peak hours, respectively. These volumes were used to create a Synchro traffic model for the "Existing Plus Project" scenario to determine changes to vehicle queuing and delay conditions directly attributable to the Project using the previously described methodologies. The Synchro delay and queue calculation worksheets are included in Appendix G.

Table 7 presents the results of the delay-based quantitative analysis of Existing (2023) and Existing (2023) Plus Project conditions. As shown, under Existing (2023) conditions, the stop-controlled approaches of 3rd Street & Kings Road and 3rd Street & Flores Street currently operate at LOS C during both peak hours. Following the addition of Project traffic, the stop-controlled approach of 3rd Street & Kings Road would continue to operate at the same LOS during both peak hours. With Project traffic, operations for the stop-controlled approach of 3rd Street & Flores Street would deteriorate to LOS E and LOS D during the AM and PM peak hours, respectively. Overall vehicle delay increases at the study intersections will range from 0.3 to 1.2 seconds, while the stop-controlled approaches will experience delay increases between 0.2 and 25.0 seconds. Overall, the Project is not expected to substantially increase delays at any of the study intersections, but the results for the southbound approach of 3rd Street & Flores Street warrant careful scrutiny of the queuing results for this approach.

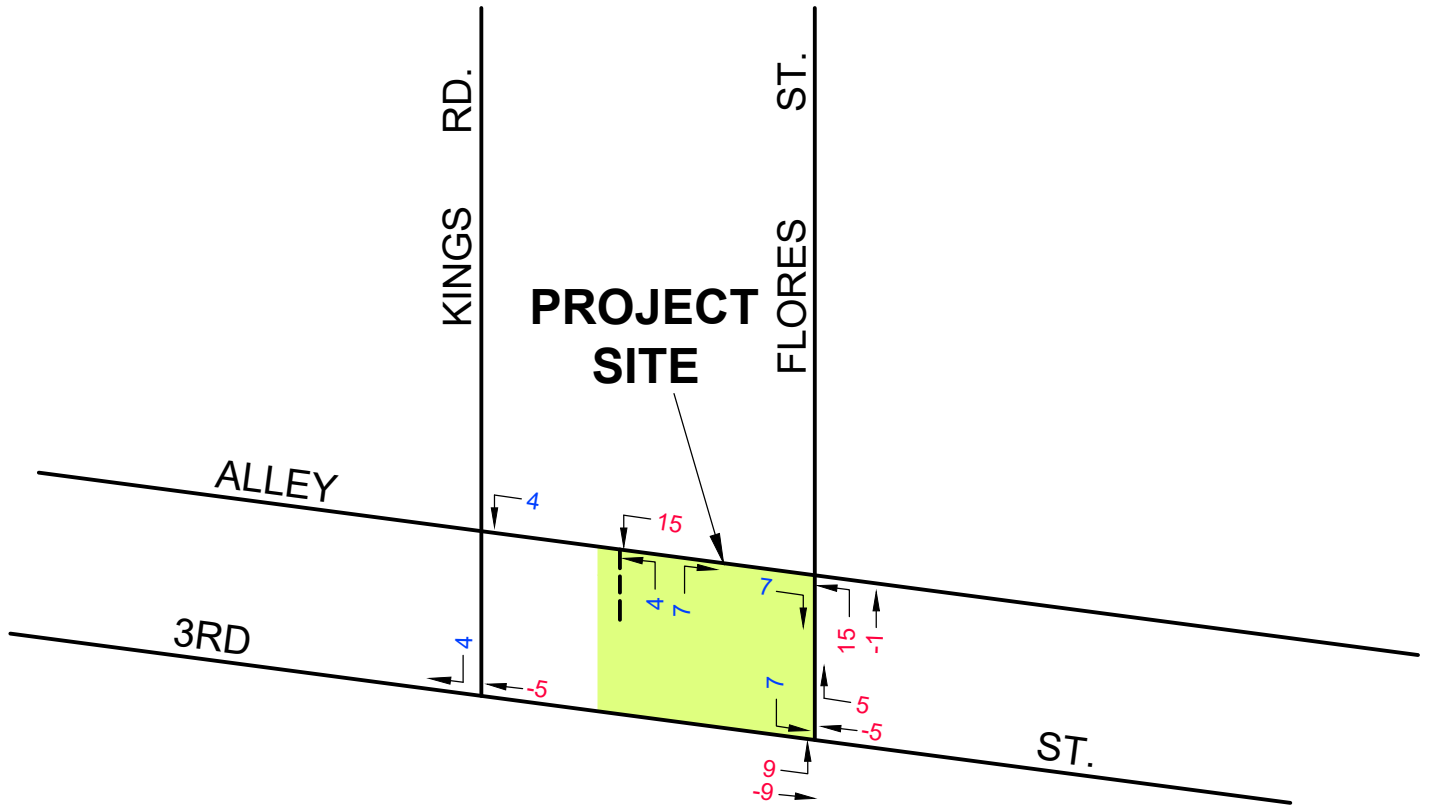




LEGEND:	
XX	INBOUND TRIP
XX	OUTBOUND TRIP

FIGURE 9(a)

7/10/2023



LEGEND:	
XX	INBOUND TRIP
XX	OUTBOUND TRIP

FIGURE 9(b)

7/10/2023

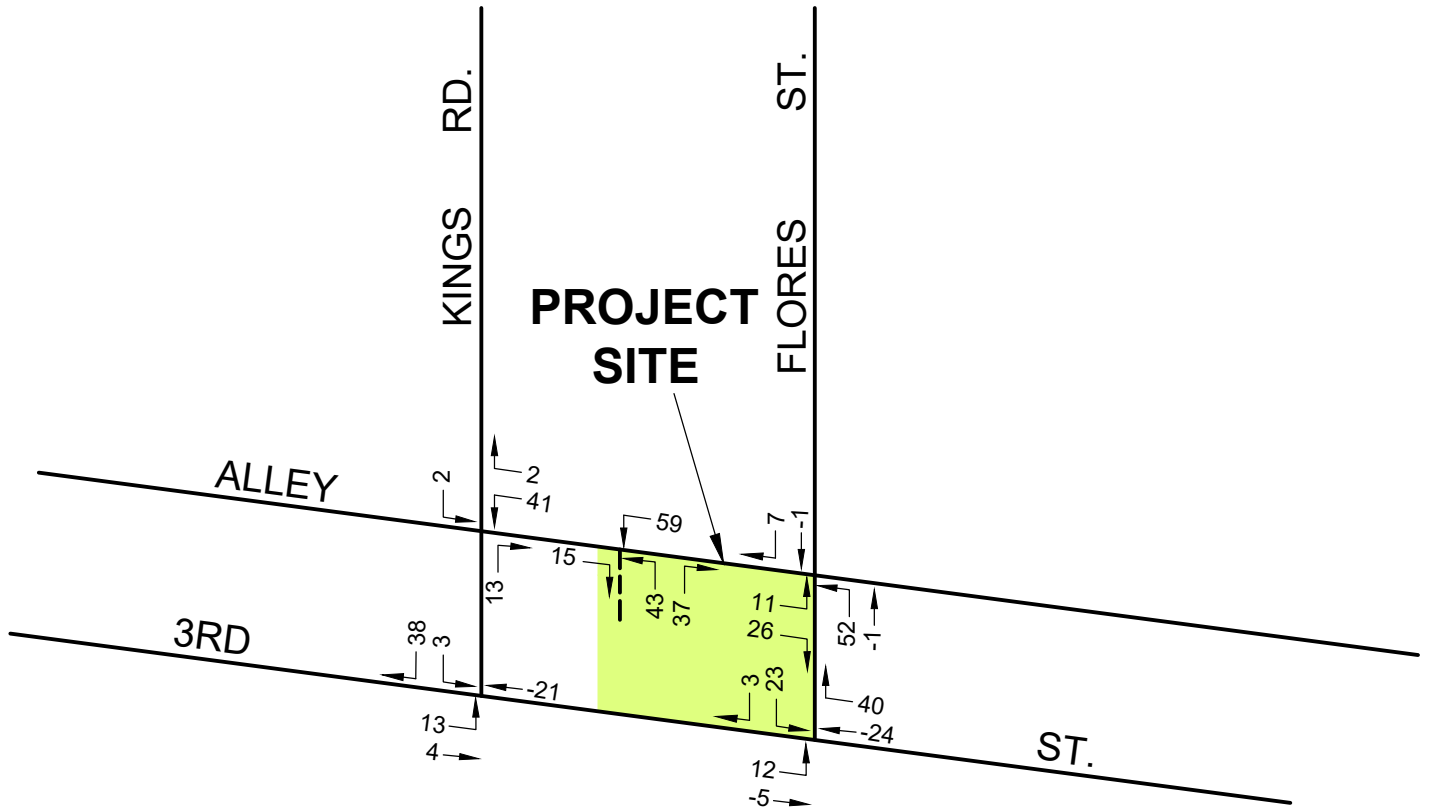


FIGURE 10(a)

6/28/2023  
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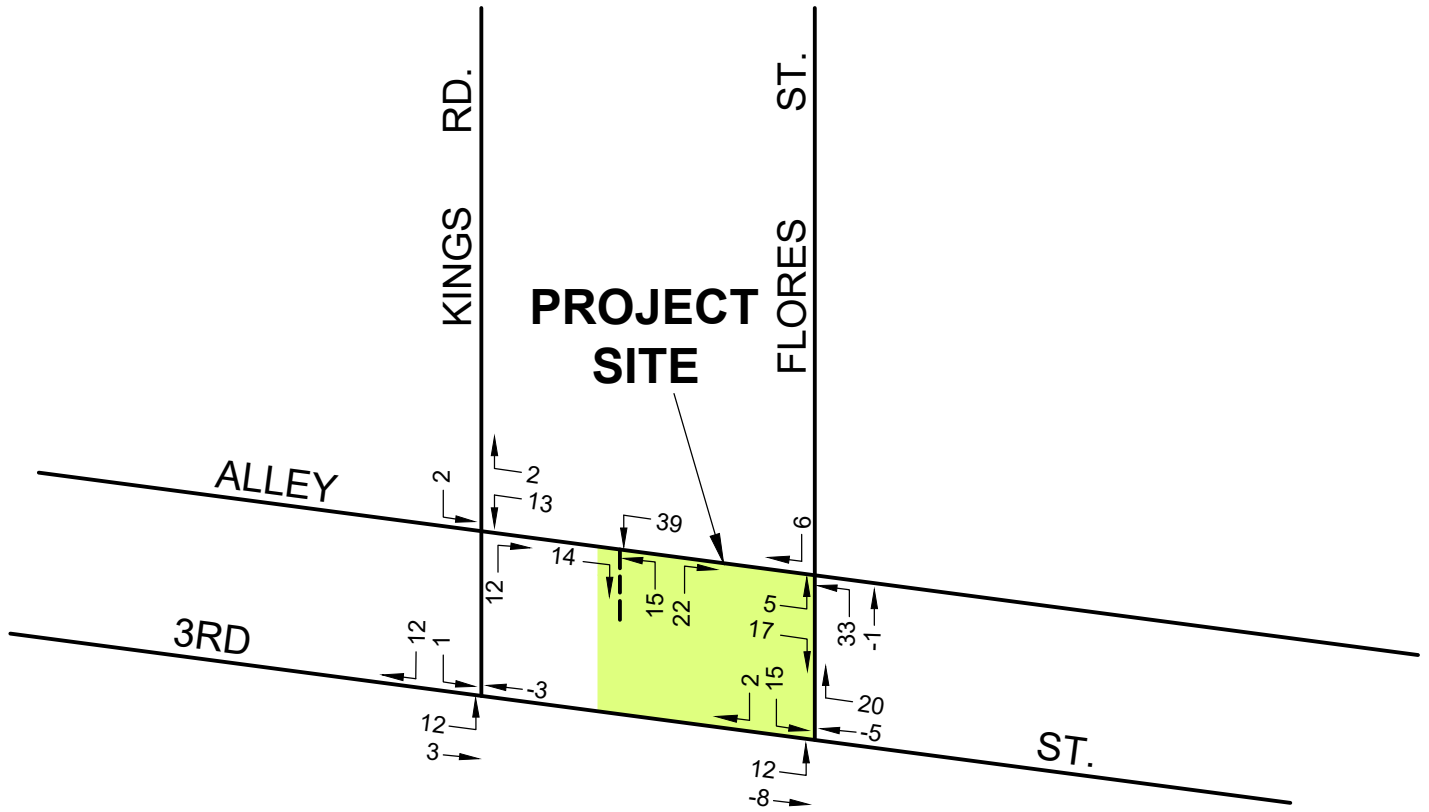


FIGURE 10(b)

6/28/2023  
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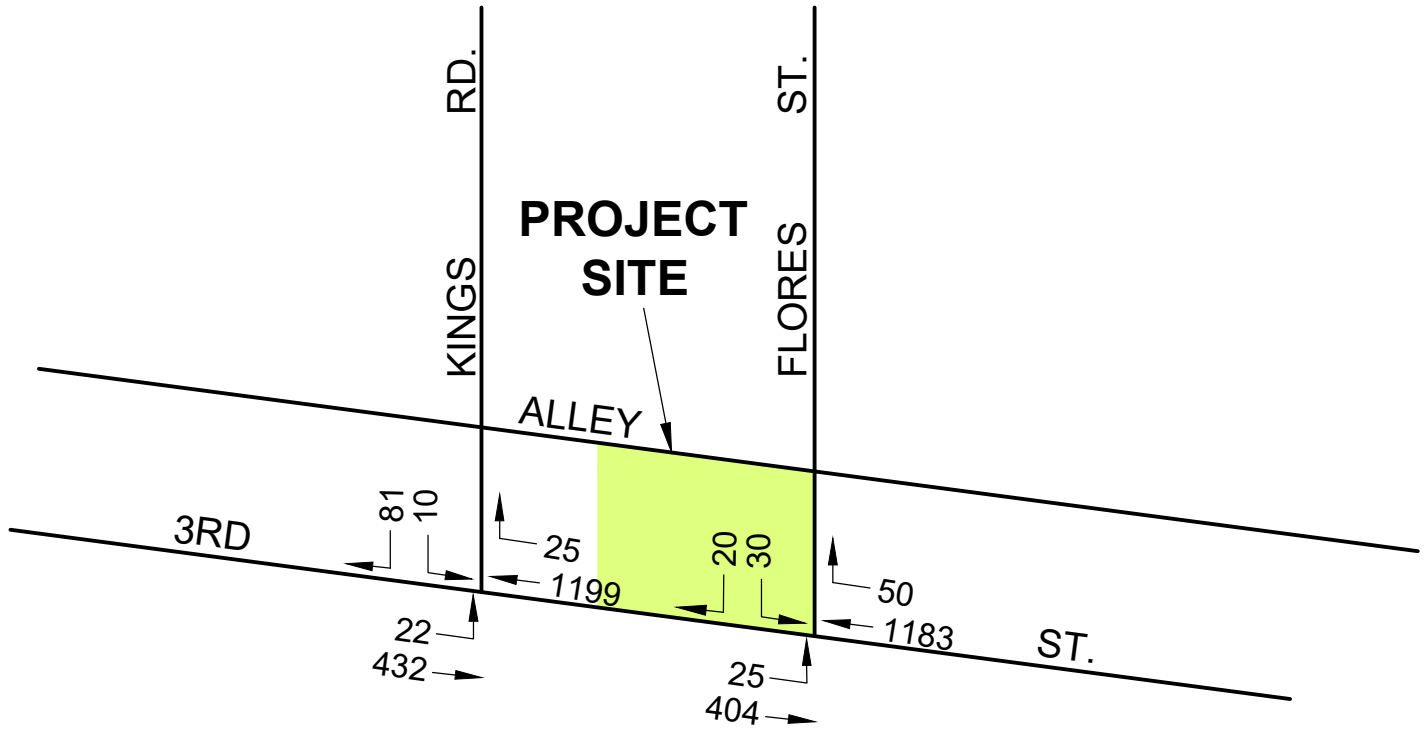


FIGURE 11(a)

6/28/2023  
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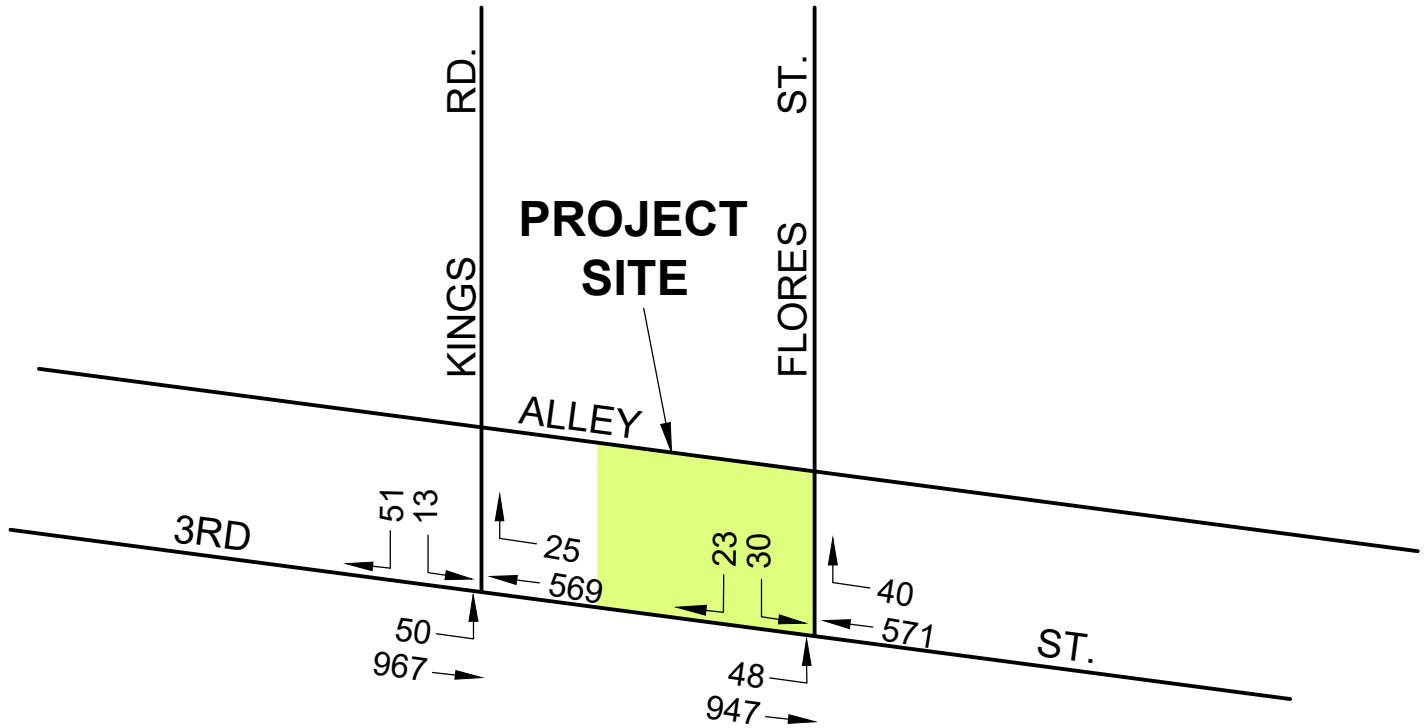


FIGURE 11(b)

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**Table 7: Existing (2023) Traffic Conditions  
Intersection Delay Summary**

No.	Study Intersection	Peak Hour	Approach	Existing		Existing Plus Project		
				Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Change <sup>3</sup>
1	3rd Street & Kings Road	AM	Overall	0.7	-	1.5	-	0.8
			EB	0.4	-	1.0	-	0.6
			WB	0.0	-	0.0	-	0.0
			SB	21.4	C	23.4	C	2.0
		PM	Overall	0.9	-	1.2	-	0.3
			EB	0.7	-	1.0	-	0.3
			WB	0.0	-	0.0	-	0.0
			SB	16.5	C	16.7	C	0.2
2	3rd Street & Flores Street	AM	Overall	0.5	-	1.7	-	1.2
			EB	0.6	-	1.1	-	0.5
			WB	0.0	-	0.0	-	0.0
			SB	24.6	C	49.6	E	25.0
		PM	Overall	0.9	-	1.4	-	0.5
			EB	0.7	-	0.9	-	0.2
			WB	0.0	-	0.0	-	0.0
			SB	20.1	C	27.9	D	7.8

**Notes:**

<sup>1</sup> Delay in seconds; <sup>2</sup> LOS = Level of Service; <sup>3</sup> Change in delay reported in seconds.

Per the *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis*, at two-way stop-controlled intersections, LOS is not defined for the intersection or for the major-street approaches.

Queuing conditions were analyzed at the unsignalized intersections. The queue lengths, measured in number of vehicles for the 95th percentile back-of-queue length, are shown in Table 8 for Existing (2023) and Existing (2023) Plus Project conditions. As shown in Table 8, the unsignalized intersections do not currently experience extensive vehicle queuing during the peak hours, with all intersection approaches exhibiting queues of less than one vehicle length. After completion of the Project, intersection approaches are expected to experience nominal increases in vehicle queue lengths of 0.0 to 1.4 vehicle lengths. The southbound (stop-controlled) approaches are expected to experience the longest vehicle queues and largest Project-related queue length increases. However, none of the southbound queues will be long enough to block the alley approximately 100 feet to the north of 3rd Street. The Project, therefore, is not expected to significantly worsen queuing conditions at the unsignalized intersections and would not interfere with access to adjacent properties and/or intersections.

### 5.2.6 FUTURE (2027) WITHOUT AND WITH PROJECT CONDITIONS

There are several other projects either under construction or planned for development in the surrounding area that may contribute future traffic volumes to the study locations. For this reason, the analysis of future traffic conditions was expanded to include potential traffic volume increases expected to be generated by these other projects. In order to evaluate future traffic conditions in the Project area, an analysis of Existing (2023) traffic volumes was first conducted, as described previously. For the analysis of future conditions, an ambient traffic growth factor of 1.0 percent per year, compounded annually, was applied to these existing volumes at the two study intersections to develop future year (2027) baseline traffic volumes.

**Table 8: Existing (2023) Traffic Conditions  
Intersection Queuing Summary**

No.	Study Intersection	Peak Hour	Approach	Existing	Existing Plus Project	
				Queue Length <sup>2</sup>	Queue Length <sup>2</sup>	Change <sup>3</sup>
1	3rd Street & Kings Road	AM	EB <sup>1</sup>	0.1	0.1	0.0
			SB	0.7	1.4	0.7
		PM	EB <sup>1</sup>	0.1	0.2	0.1
			SB	0.5	0.7	0.2
2	3rd Street & Flores Street	AM	EB <sup>1</sup>	0.1	0.2	0.1
			SB	0.4	1.8	1.4
		PM	EB <sup>1</sup>	0.1	0.2	0.1
			SB	0.5	1.0	0.5

Notes:

<sup>1</sup> Queue lengths along uncontrolled approach correspond to the queue of left-turning vehicles.

<sup>2</sup> 95th percentile queue length in number of vehicles.

<sup>3</sup> Change in queue length reported in number of vehicles.

The inclusion of the annual growth factor generally accounts for area-wide traffic volume increases. To ensure a conservative estimate of cumulative traffic conditions, the traffic volumes generated by “related projects” in the study area were also added to the future baseline traffic volumes. The total future volumes, including those due to related projects, formed the basis for the Future (2027) Without Project condition. Finally, the traffic expected to be generated by the Project was analyzed as an incremental addition to the Future (2027) Without Project condition, resulting in the Future (2027) With Project condition.

#### Ambient Traffic Growth

Based on an analysis of traffic growth projections in the Wilshire Community Plan Area, the LADOT recommended the application of an ambient traffic growth factor of 1.0 percent per year for future traffic growth. This growth factor was used to account for increases in traffic volumes due to potential development projects not yet proposed or outside the study area. Compounded annually, the ambient traffic growth factor was applied to the Existing (2023) traffic volumes to develop the estimated baseline volumes for the future study year of 2027.

#### Related Projects

In addition to the use of the ambient growth rate, listings of potential projects located in the surrounding area (“related projects”) that might be developed within the study time frame were obtained from the LADOT and Department of City Planning. Recently published transportation impact studies and environmental reports for development projects in the area were also reviewed. Per the TAG, the related projects from these sources and within an approximate 0.5-mile radius of the Project site were included. Refinement of the information resulted in a total of eight (8) related projects in the surrounding area that could add traffic to the study intersections.

The locations of the related projects are shown in Figure 12, Related Project Location Map. The related project locations, descriptions, and trip generation estimates are summarized in Table 9. The number of





FIGURE 12

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**Table 9: Related Project Locations, Descriptions, and Trip Generation Estimates**

CITY OF LOS ANGELES											
No.	Address Location	Size		Project Description	Daily	AM PEAK HOUR			PM PEAK HOUR		
						In	Out	Total	In	Out	Total
1	488 S San Vicente Bl <sup>[1]</sup>	53	du	Multifamily Housing	281	1	20	21	18	9	27
		6.585	ksf	Retail							
2	316 N La Cienega Bl <sup>[1]</sup>	56	du	Multifamily Housing	331	5	17	22	16	12	28
		5	du	Affordable Housing							
		4.097	ksf	Retail							
3	333 S San Vicente Bl <sup>[1]</sup>	153	du	Multifamily Housing	650	11	32	43	32	21	53
		17	du	Affordable Housing							
		31.439	ksf	Church Office Remodel							
4	400 S San Vicente Bl <sup>[1]</sup>	113	du	Multifamily Housing	795	44	60	104	45	19	64
		14	du	Affordable Housing							
		11.275	ksf	Restaurant							
5	8000 W 3rd St <sup>[1]</sup>	45	du	Multifamily Housing	428	9	17	26	23	13	36
		5	du	Other Housing							
		6.252	ksf	Retail							
6	8052 W Beverly Bl <sup>[1]</sup>	5	ksf	Synagogue	725	19	26	45	21	49	70
		102	du	Multifamily Housing							
		15.000	ksf	Medical Office							
		1.000	ksf	Retail							
7	333 S La Cienega Bl <sup>[1]</sup>	145	du	Multifamily Housing	2020	35	71	106	114	77	191
		27.685	ksf	Supermarket							
		3.370	ksf	Restaurant							
8	8000 W Beverly Bl <sup>[1]</sup>	48	du	Multifamily Housing	774	21	36	57	42	17	59
		7.400	ksf	Retail							

## Notes:

du = Dwelling Units; ksf - Thousands of Square Feet.

<sup>[1]</sup> Net trip generation and peak-hour directional provided by the LADOT Case Logging and Tracking System (CLATS) related projects database (accessed June 8, 2023).

vehicle trips expected to be generated by the related projects were obtained from information provided by public agencies and environmental reports, to the extent available.

For the analysis of Future (2027) Without Project traffic conditions, each related project's generated vehicle trips were distributed and assigned to the study area circulation system, using methodologies similar to those previously described for the Project trip distribution and assignment. Summing the individual related project traffic volume assignments, the total related project traffic volumes at the study intersections were calculated and are shown in Figures 13(a) and 13(b) for the weekday AM and PM peak hours, respectively.

### Highway System Improvements

In order to analyze properly future traffic conditions, an investigation was conducted regarding relevant future transportation improvements to the roadway system infrastructure in the Project study area. No traffic improvements were identified as scheduled for implementation that would affect use of the existing street system.

The goals and policies of the City's 2010 Bicycle Plan (City of Los Angeles Department of Planning, adopted March 1, 2011) have been folded into the Mobility Plan 2035. It is a Mobility Plan 2035 objective to complete the proposed bicycle paths, protected cycle tracks, bicycle lanes, routes, and priority Neighborhood Enhanced Network roadway segments by 2035. While some of these improvements have already been realized, the following improvements are scheduled for implementation within the Project study area:

- 3rd Street will add Tier 2 bicycle lanes between San Vicente Boulevard and La Brea Avenue. Vehicular lanes may have to be reconfigured to accommodate the bicycle facility upgrades.
- 3rd Street will add moderate transit enhanced streets per the LADOT 2035 Mobility Plan.

Per information reviewed of the LADOT website, the abovementioned bicycle infrastructure improvements are not currently in the planning, design, or construction phases. Therefore, these improvements are unlikely to be installed between now and the Project buildout year of 2027. As such, no changes to the future (2027) study intersection geometrics and/or traffic control conditions due to bicycle facility improvements have been assumed in the operational analysis.

A review of the LADOT Capital Improvement Projects and Bureau of Engineering Street Improvement Master Schedule revealed no projects that would affect operations at any of the study locations. As no highway system improvements were identified, the existing and future intersection geometrics and traffic control conditions are assumed to be the same, as illustrated in Appendix E.

### Analysis of Future (2027) Traffic Conditions, Without and With Project

The analysis of future traffic conditions at the study intersections was performed using the analysis procedures described previously in this report. Future (2027) baseline traffic volumes for the Without Project condition were determined by superimposing area-wide ambient traffic growth and the total related projects traffic volumes onto Existing (2023) traffic volumes. The Future (2027) Without Project traffic volumes are illustrated in Figures 14(a) and 14(b) for the weekday AM and PM peak hours, respectively.

Project traffic volumes [Figures 10(a) and 10(b)], as determined earlier, were then added to the Future (2027) Without Project traffic volumes to develop the Future (2027) With Project traffic volumes. The Future (2027) With Project weekday AM and PM peak-hour traffic volumes are shown in Figures 15(a) and 15(b),

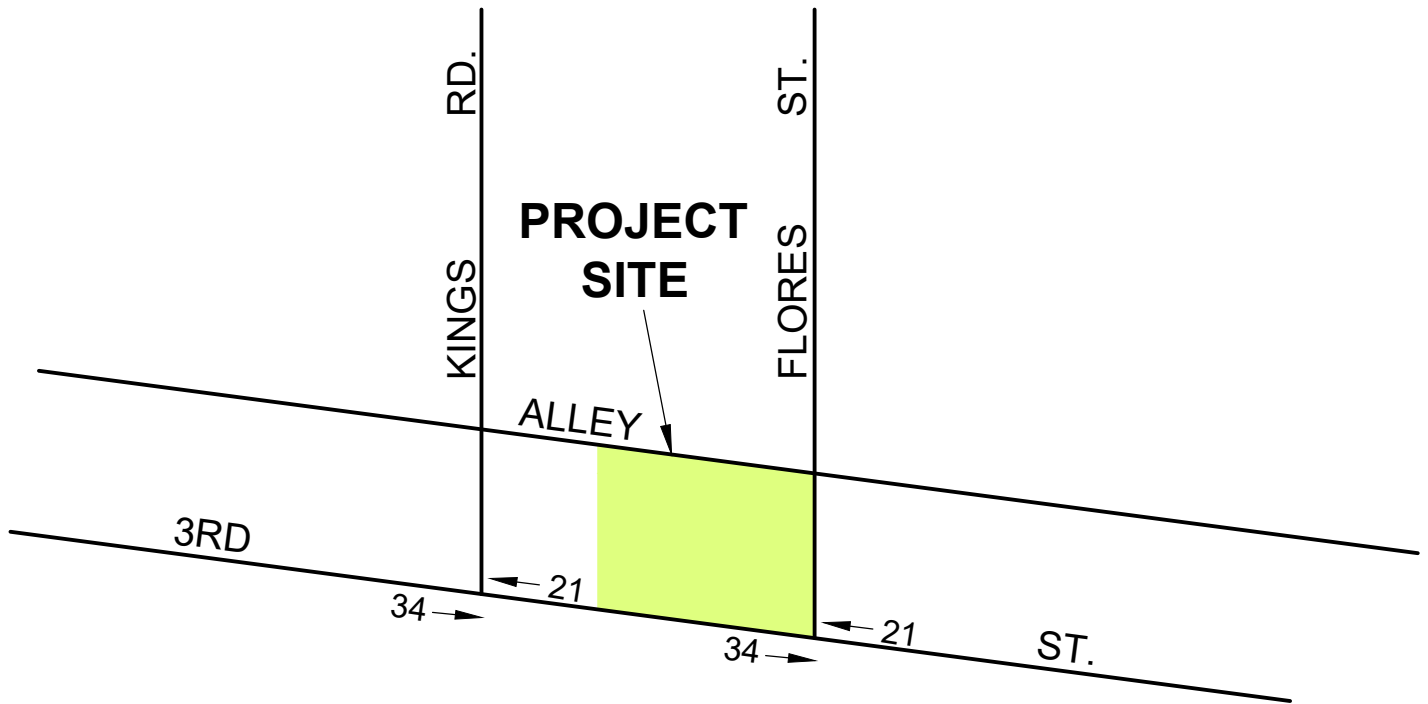


FIGURE 13(a)

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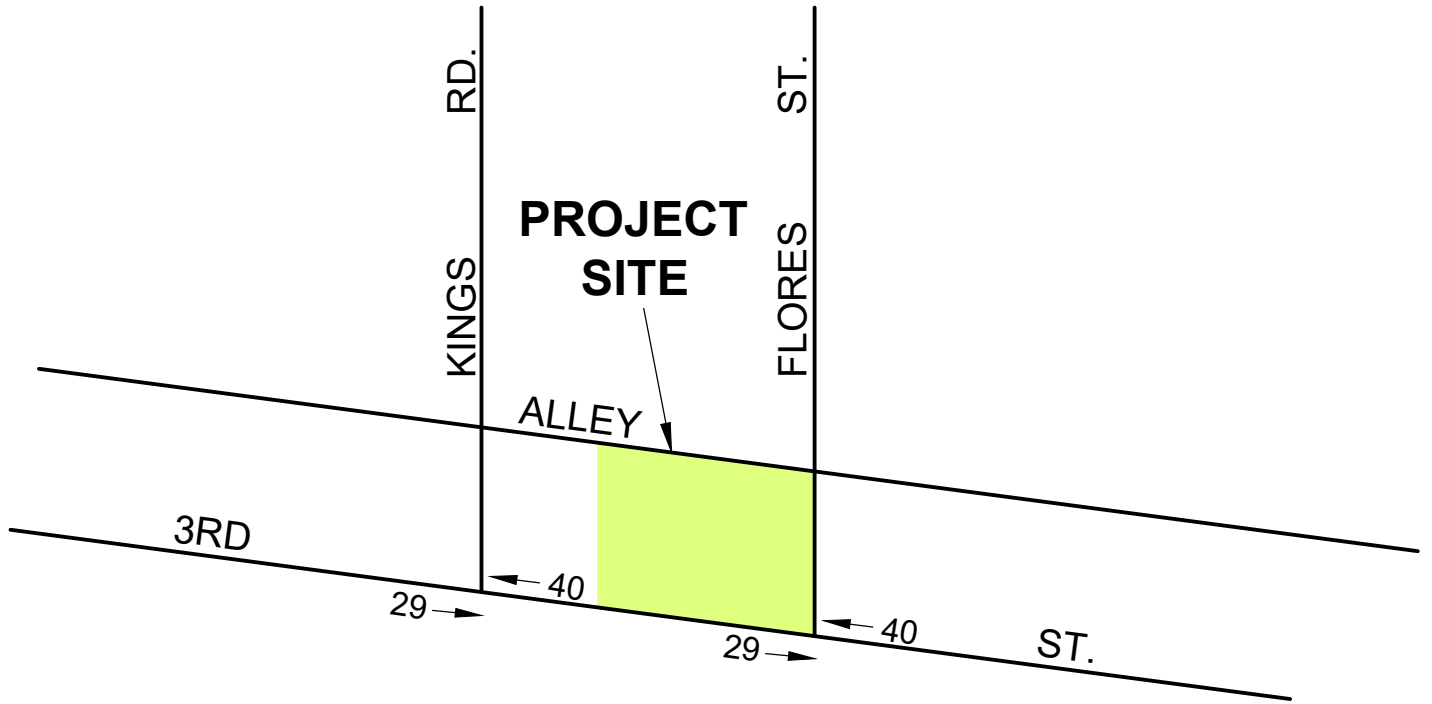


FIGURE 13(b)

6/28/2023  
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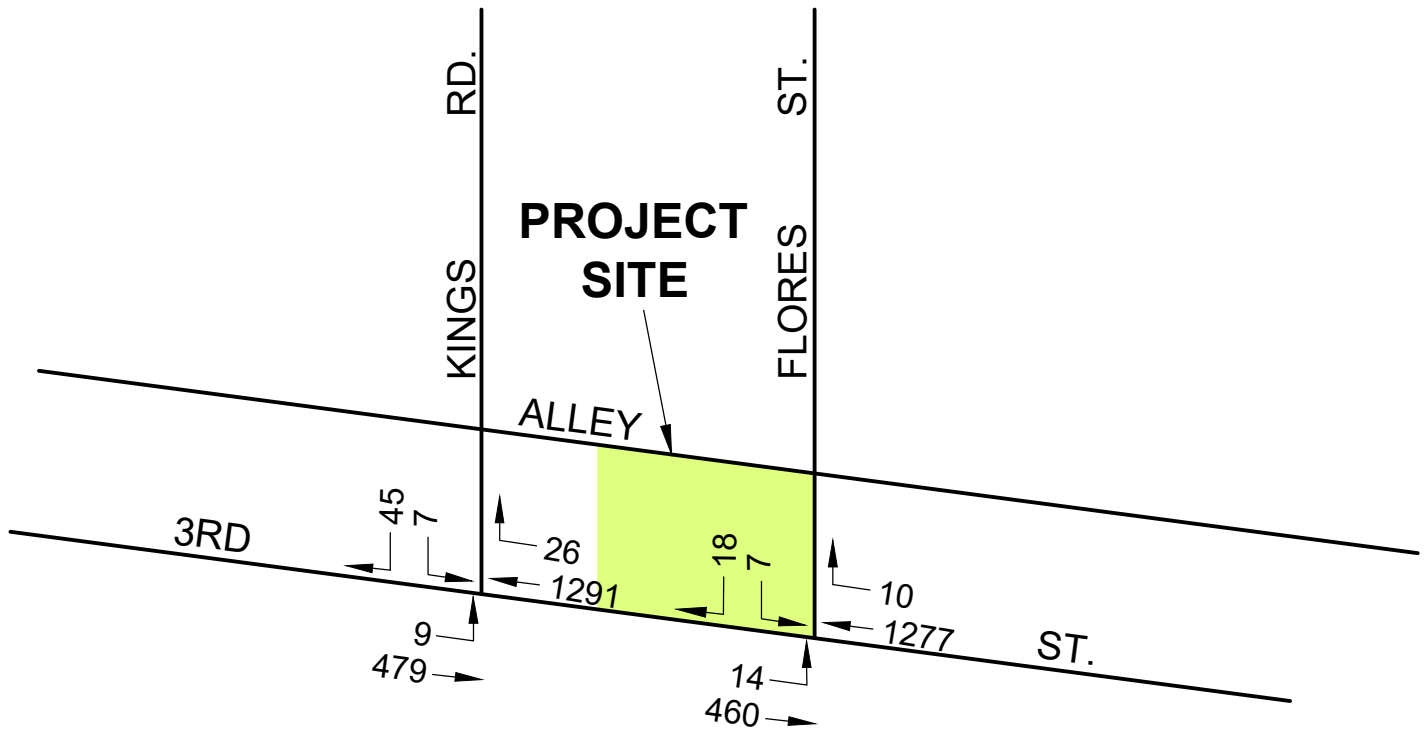


FIGURE 14(a)

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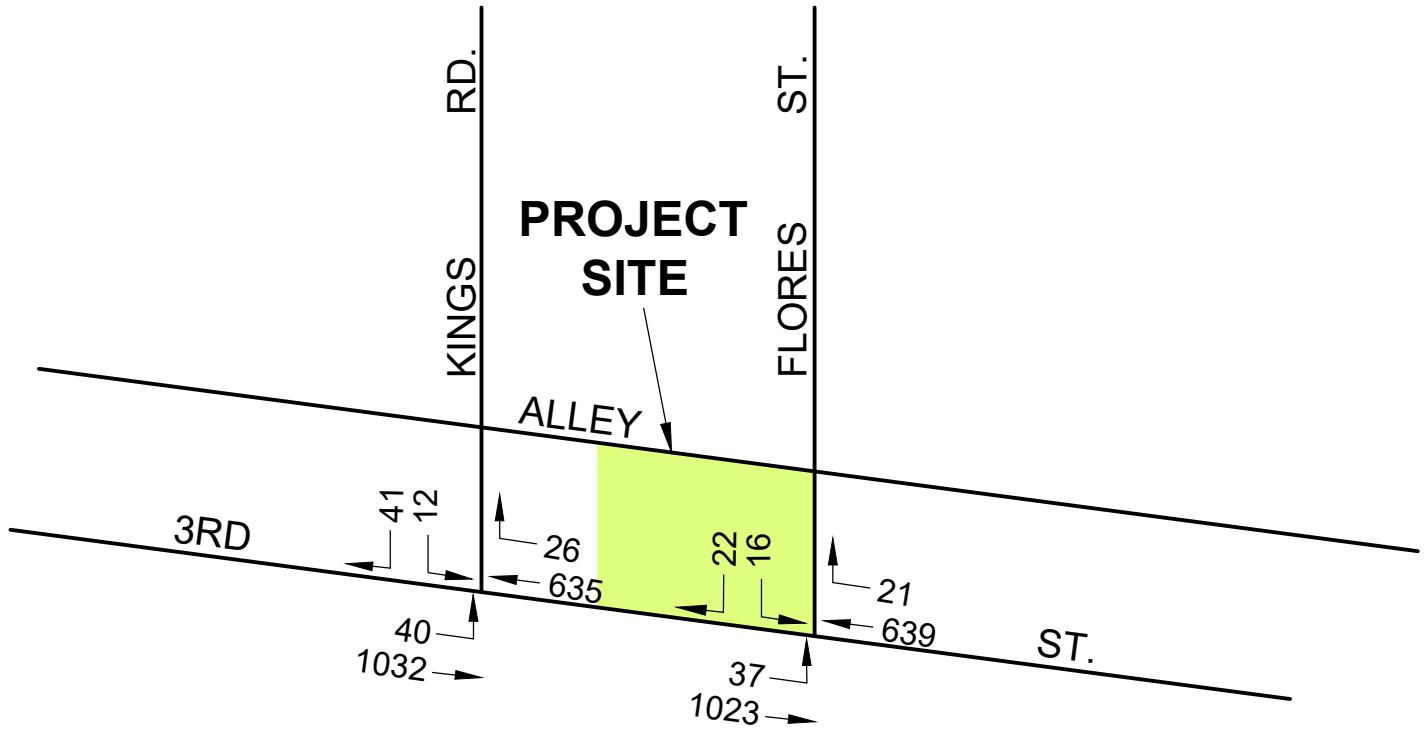


FIGURE 14(b)

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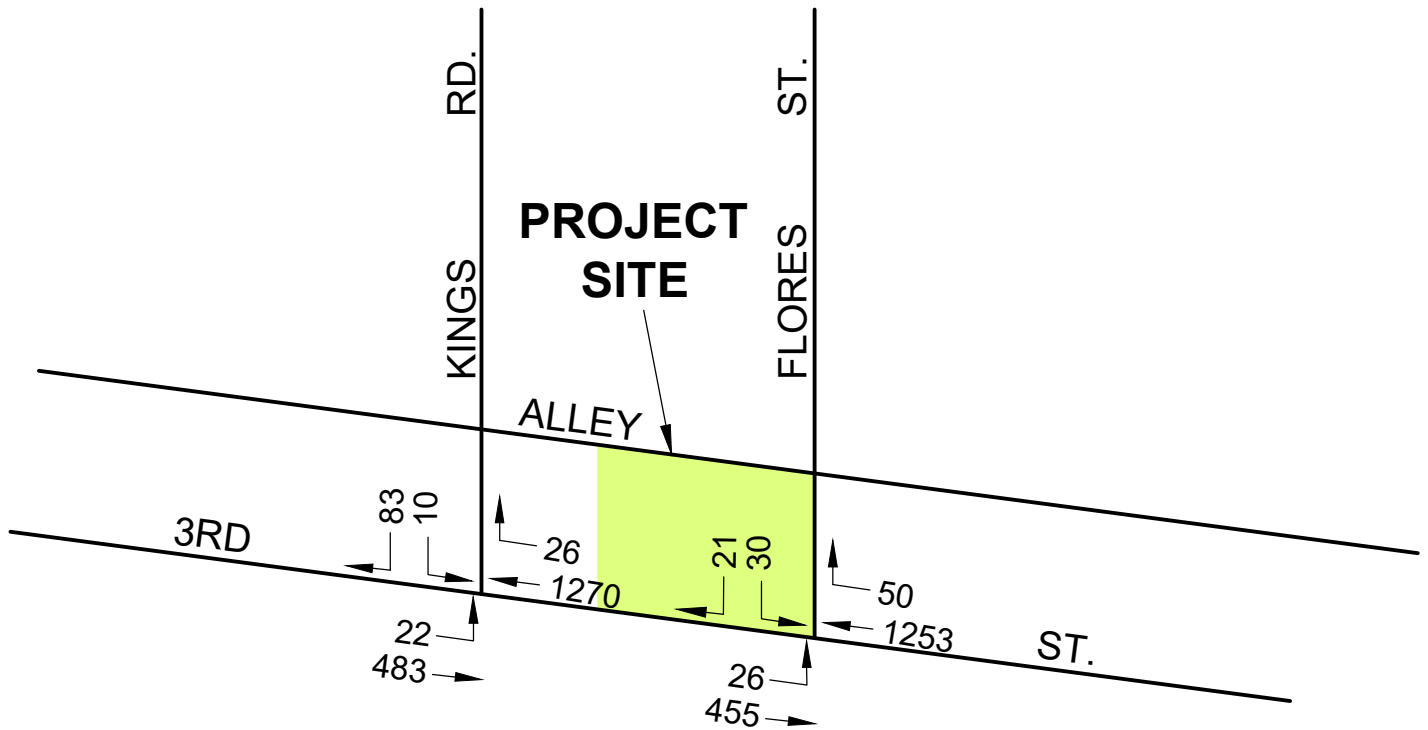


FIGURE 15(a)

7/12/2023



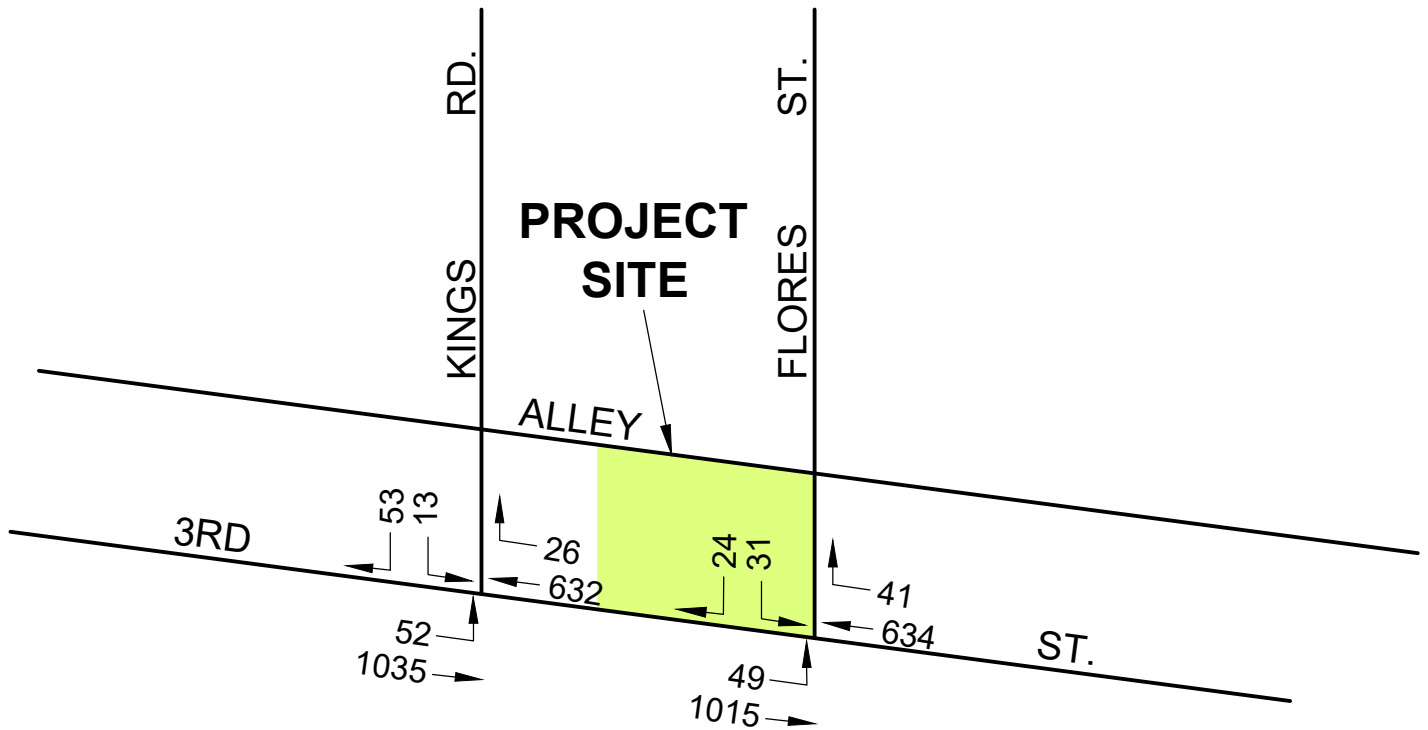


FIGURE 15(b)

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respectively. The Future (2027) With Project traffic volumes were incorporated into the Synchro model to determine the future delay and queuing conditions at the study intersections after Project completion and the results are included in Appendix G.

The results of the delay-based quantitative analysis of future traffic conditions at the study intersections are summarized in Table 10. Under Future (2027) Without Project conditions, traffic operations are expected to degrade slightly when compared with existing conditions. As shown, the stop-controlled approach of 3rd Street & Kings Road would continue to operate at LOS C during both peak hours. For 3rd Street & Flores Street, operations on the stop-controlled approach would degrade to LOS D during the AM peak hour and continue at LOS C during the PM peak hour. Following the addition of Project traffic, the stop-controlled approach of stop-controlled approach of 3rd Street & Kings Road would degrade to LOS D during the AM peak hour and maintain at LOS C during the PM peak hour. With Project traffic, operations for the stop-controlled approach of 3rd Street & Flores Street would deteriorate to LOS F and LOS D during the AM and PM peak hours, respectively. There will be relatively moderate increases in overall vehicle delays at the intersections, ranging from 0.2 to 1.5 seconds, while the stop-controlled approaches will experience delay increases between 0.6 and 35.3 seconds. Overall, the Project is not expected to substantially increase delays at any of the study intersections, but the results for the southbound approach of 3rd Street & Flores Street warrant careful examination of the queuing results for this approach. While this intersection approach is projected to operate at LOS F under AM peak hour conditions, the southbound left- and right-turning volumes total only 51 vehicles. Therefore, implementation of a traffic signal is unlikely to be warranted based on traffic volumes.

**Table 10: Future (2027) Traffic Conditions Intersection Delay Summary**

No.	Study Intersection	Peak	Approach	Future Without Project		Future With Project		
				Delay <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>1</sup>	LOS <sup>2</sup>	Change <sup>3</sup>
1	3rd Street & Kings Road	AM	Overall	0.8	-	1.6	-	0.8
			EB	0.4	-	0.9	-	0.5
			WB	0.0	-	0.0	-	0.0
			SB	23.5	C	26.7	D	3.2
		PM	Overall	1.1	-	1.3	-	0.2
			EB	0.9	-	1.1	-	0.2
			WB	0.0	-	0.0	-	0.0
			SB	18.3	C	18.9	C	0.6
2	3rd Street & Flores Street	AM	Overall	0.6	-	2.1	-	1.5
			EB	0.7	-	1.2	-	0.5
			WB	0.0	-	0.0	-	0.0
			SB	27.2	D	62.5	F	35.3
		PM	Overall	1.0	-	1.7	-	0.7
			EB	0.8	-	1.1	-	0.3
			WB	0.0	-	0.0	-	0.0
			SB	23.6	C	34.9	D	11.3

Notes:  
<sup>1</sup> Delay in seconds; <sup>2</sup> LOS = Level of Service; <sup>3</sup> Change in delay reported in seconds.  
 Per the *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis*, at two-way stop-controlled intersections, LOS is not defined for the intersection or for the major-street approaches.

Queuing conditions were analyzed at the unsignalized intersections. The queue lengths are shown in Table 11 for Future (2027) Without Project and With Project conditions. As shown in Table 11, under Future (2027) Without Project conditions, the unsignalized intersections are not expected to experience extensive queuing, with all intersection approaches exhibiting queues of less than one vehicle length. Following Project completion, most intersection approaches are expected to experience nominal increases in queue lengths of 0.1 to 1.7 vehicle lengths. The southbound (stop-controlled) approaches are expected to experience the longest vehicle queues and largest Project-related queue length increases. However, no one of the southbound queues will be long enough to block the alley approximately 100 feet north of 3rd Street. Thus, the Project is not expected to significantly worsen queuing conditions at the unsignalized intersections and would not interfere with access to adjacent properties and/or intersections.

**Table 11: Future (2027) Traffic Conditions Intersection Queuing Summary**

No.	Study Intersection	Peak Hour	Approach	Without Project	With Project	
				Queue Length <sup>2</sup>	Queue Length <sup>2</sup>	Change <sup>3</sup>
1	3rd Street & Kings Road	AM	EB <sup>1</sup>	0.1	0.2	0.1
			SB	0.8	1.7	0.9
		PM	EB <sup>1</sup>	0.2	0.2	0.0
			SB	0.6	0.8	0.2
2	3rd Street & Flores Street	AM	EB <sup>1</sup>	0.1	0.2	0.1
			SB	0.5	2.2	1.7
		PM	EB <sup>1</sup>	0.1	0.2	0.1
			SB	0.6	1.4	0.8

Notes:

- <sup>1</sup> Queue lengths along uncontrolled approach correspond to the queue of left-turning vehicles.
- <sup>2</sup> 95th percentile queue length in number of vehicles.
- <sup>3</sup> Change in queue length reported in number of vehicles.

**5.2.7 PASSENGER LOADING EVALUATION**

Due to the increased prevalence of driver-for-hire transportation network companies (TNCs), the TAG requires an evaluation of passenger loading areas for development projects. The majority of passenger loading is expected to occur within the Project’s parking areas on Levels 2 and 3 of the building or on the adjacent alley. Passenger loading in these areas will allow passengers to unload in an area with few vehicular conflicts and slow-moving vehicles, allowing loading activities not to interfere with through traffic along 3rd Street or Flores Street. In addition, an existing site driveway on Flores Street will be removed, which may provide additional on-street parking adjacent to the Project site. Thus, with the multiple locations within and adjacent to the site for safe loading, the Project’s passenger loading activities are not anticipated to adversely affect the operations of the adjacent roadways.

**5.3 PROJECT CONSTRUCTION**

The TAG requires an evaluation of potential effects to pedestrian, bicycle, transit, and vehicle circulation resulting from the construction activities of development projects. In order to assist in determining whether further analysis of these construction-related effects is required, the TAG establishes seven screening criteria

to identify development projects that may reduce the functionality of nearby transportation facilities. Further analysis of construction activities is required if any of the following screening criteria are met:

1. The development project requires construction activities to take place within the right-of-way of a Boulevard or Avenue, which would necessitate temporary, lane, alley, or street closures for more than one day (including day and evening hours, and overnight closures if on a residential street).
2. The development project requires construction activities to take place within the right-of-way of a Collector or Local Street, which would necessitate temporary lane, alley, or street closures for more than seven days (including day and evening hours, and overnight closures if on a residential street).
3. In-street construction activities would result in the loss of regular vehicle, bicycle, or pedestrian access, including loss of bicycle parking to an existing land use for more than one day (including day and evening hours and overnight closures if access is lost to residential uses).
4. In-street construction activities would result in the loss of regular ADA pedestrian access to an existing transit station, stop, or facility (e.g., layover zone) during revenue hours.
5. In-street construction activities would result in the temporary loss, for more than one day, of an existing bus stop or the rerouting of a bus route that serves the development project site.
6. Construction activities would result in the temporary removal and/or loss of on-street metered parking for more than 30 days.
7. The development project would involve a discretionary action to construct new buildings or additions of more than 1,000 square feet that require access for hauling construction materials and equipment from streets of less than 24 feet wide in a hillside area.

Most construction activities for the Project are anticipated to be contained within the Project site. Concrete pours may require the temporary closure of a portion of the roadway width along 3rd Street or Flores Street, adjacent to the site. The duration of these closures is expected to be short-term. Pedestrian circulation around the site will remain accessible during most phases of construction, as overhead sidewalk protection will be erected along the sidewalk adjacent to the Project site. However, the Project will remove of the existing driveway on Flores Street and install bicycle parking stalls along 3rd Street and Flores Street. This will involve the short-term closure of the sidewalk adjacent to the Project site. Although the short-term sidewalk closure technically blocks an ADA pedestrian access route, the presence of a sidewalk on the other sides of 3rd Street and Flores Street will continue to ensure appropriate ADA access to transit facilities is provided along these roadways. Construction staging may occupy the parking lane adjacent to the Project site. This may require the displacement of some on-street parking. All construction activity is temporary; therefore, any disruptions would be relatively short-term in nature.

In addition, the Project will prepare a Construction Staging and Traffic Management Plan, to be approved by the LADOT. This plan will detail the measures enacted to mitigate negative effects on traffic during construction related to designated haul routes and staging areas, traffic control procedures, emergency access provisions, and construction crew parking. The Project shall obtain prior LADOT approval for any lane closures, detours, on-street staging areas, or other temporary changes in traffic control due to construction activities and will enact appropriate temporary traffic control procedures. Haul routes for Project construction will be coordinated with the City of Los Angeles Department of Building and Safety (LADBS) to minimize the effects of construction traffic to congested roadways and residential streets. With the implementation of these measures, the Project construction would not adversely affect the pedestrian, bicycle, transit, and vehicular circulation around the Project site and no further analysis is required.

## 5.4 RESIDENTIAL STREET CUT-THROUGH ANALYSIS

The TAG seeks to identify whether cut-through traffic resulting from a development project would considerably increase average daily traffic (ADT) along residential Local Streets near the development site. Cut-through trips result from the traffic diverting from congested arterial streets to roadways with residential use frontage that are designated as Local Streets. The TAG establishes preliminary screening criteria to identify development projects that may contribute a significant amount of cut-through traffic to nearby residential streets. Further analysis may be required if both of the following screening criteria are met:

1. The development project would generate a net increase of 250 or more daily vehicle trips.
2. The development project includes a discretionary action that would be under review by the Department of City Planning.

As described previously, the Project proposes a total of 77 multifamily residential dwelling units, 8 of which would be reserved for affordable housing, and up to 12,000 square feet of ground-floor commercial space. Per the VMT Calculator, these uses will generate 995 net daily vehicle trips without consideration of the Project's proposed TDM features. The Project also requires review by the Department of City Planning. Therefore, an assessment of the roadways in the vicinity of the Project area must be conducted to determine whether Project traffic is likely to be shifted from the arterial roadways to residential Local Streets. The following three conditions must be present when selecting residential street segments for analysis:

- The development project is located along a currently congested Boulevard or Avenue and adds trips that may lead to trip diversion to parallel routes along residential Local Streets.
- The development project is projected to add a substantial amount of traffic to the congested Boulevard(s), Avenue(s), or Collector(s) that could potentially cause a shift to alternative route(s).
- Nearby local residential street(s) provide motorists with a viable alternative route.

The Project is located on the north side of 3rd Street, which is classified as an Avenue II per the Mobility Plan 2035. Vehicular access is proposed via the alley at the rear of the Project site. Per the TAG, it is City policy to locate new development project driveways on lower-volume side streets and not arterials. Therefore, trips to and from new development projects with driveways located on neighborhood streets are not considered "cut-through" traffic. Thus, the Project will not contribute to residential Local Street traffic intrusion.

## 5.5 FREEWAY SAFETY ANALYSIS SCREENING

The *Interim Guidance for Freeway Safety Analysis* was developed by LADOT to address Caltrans comments regarding freeway off-ramp safety considerations, especially as they pertain to freeway off-ramp queueing and speed differentials. The analysis guidance presented in the memorandum are used to evaluate whether conditions along Caltrans off-ramp facilities resulting from a project represent a potential safety impact under CEQA. The freeway safety analysis screening for determining if a development project is required to conduct a freeway ramp analysis is one criterion:

*Will the development project add 25 or more vehicle trips to any freeway off-ramp in either the AM or PM peak hour?*

The Project's weekday peak-hour trip generation estimates (presented in the Project Access, Safety, and Circulation Evaluation section of this report) indicate that the Project will generate at most 41 inbound vehicle trips during a peak hour (AM peak hour). Per the Project trip distribution percentages shown in Figures 6(a) and 6(b), once these trips are distributed to the larger surrounding roadway network, no individual freeway off-ramp will experience close to 25 vehicle trips during either peak hour. Since the Project will not add 25 or more trips to any freeway off-ramp in either the AM or PM peak period, the Project does not require a freeway ramp analysis.

## 6. MITIGATION MEASURES AND RECOMMENDED ACTIONS

Project transportation impacts were analyzed for CEQA and non-CEQA related issues in this transportation assessment report. As indicated in the preceding analyses, the Project is not expected to conflict with City plans, programs, ordinances, or policies; cause substantial VMT; or substantially increase hazards. Thus, no CEQA transportation-related mitigation measures are required for the Project.

Additionally, the Project is not anticipated to adversely affect pedestrian, bicycle, and transit access; cause Project access or circulation constraints; generate substantial construction interference to pedestrian, bicycle, transit, and vehicle circulation; result in residential street cut-through burdens; or cause freeway off-ramp safety concerns. Therefore, based on the non-CEQA analysis, no recommended actions were deemed necessary to address deficiencies in the circulation system surrounding the Project site.

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**APPENDIX A**

**TRANSPORTATION ASSESSMENT MEMORANDUM OF UNDERSTANDING  
(SIGNED JUNE 22, 2023)**

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**Attachment C**

**Transportation Assessment Memorandum of Understanding (MOU)**

This MOU acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT’s Transportation Assessment Guidelines:

**I. PROJECT INFORMATION**

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

Project Description: \_\_\_\_\_

LADOT Project Case Number: \_\_\_\_\_ Project Site Plan attached? *(Required)*  Yes  No

**II. TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES**

Select any of the following TDM measures, which may be eligible as a Project Design Feature<sup>1</sup>, that are being considered for this project:

Reduced Parking Supply <sup>2</sup>	Bicycle Parking and Amenities	Parking Cash Out
-------------------------------------	-------------------------------	------------------

List any other TDM measures (e.g. bike share kiosks, unbundled parking, microtransit service, etc) below that are also being considered and would require LADOT staff’s determination of its eligibility as a TDM measure. LADOT staff will make the final determination of the TDM measure’s eligibility for this project.

- |         |         |
|---------|---------|
| 1 _____ | 3 _____ |
| 2 _____ | 4 _____ |
| _____   | _____   |

**III. TRIP GENERATION**

Trip Generation Rate(s) Source: ITE 10th Edition / Other \_\_\_\_\_

Trip Generation Adjustment <i>(Exact amount of credit subject to approval by LADOT)</i>	Yes	No
Transit Usage	<input type="checkbox"/>	<input type="checkbox"/>
Existing Active or Previous Land Use	<input type="checkbox"/>	<input type="checkbox"/>
Internal Trip	<input type="checkbox"/>	<input type="checkbox"/>
Pass-By Trip	<input type="checkbox"/>	<input type="checkbox"/>
Transportation Demand Management (See above)	<input type="checkbox"/>	<input type="checkbox"/>

Trip generation table including a description of the existing and proposed land uses, rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? *(Required)*  Yes  No

	IN	OUT	TOTAL
AM Trips	_____	_____	_____
PM Trips	_____	_____	_____

NET Daily Vehicle Trips (DVT)  
 \_\_\_\_\_ DVT (ITE \_\_ ed.)  
 \_\_\_\_\_ DVT (VMT Calculator ver. \_\_ )

<sup>1</sup> At this time Project Design Features are only those measures that are also shown to be needed to comply with a local ordinance, affordable housing incentive program, or State law.

<sup>2</sup> Select if reduced parking supply is pursued as a result of a parking incentive as permitted by the City’s Bicycle Parking Ordinance, State Density Bonus Law, or the City’s Transit Oriented Community Guidelines.



**IV. STUDY AREA AND ASSUMPTIONS**

Project Buildout Year: \_\_\_\_\_ Ambient Growth Rate: \_\_\_\_\_ % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? *(Required)*  Yes  No

STUDY INTERSECTIONS and/or STREET SEGMENTS:

*(May be subject to LADOT revision after access, safety, and circulation evaluation.)*

1 _____	3 _____
2 _____	4 _____
5 _____	6 _____

Provide a separate list if more than six study intersections and/or street segments.

Is this Project located on a street within the High Injury Network?  Yes  No

If a study intersection is located within a ¼-mile of an adjacent municipality’s jurisdiction, signature approval from said municipality is required prior to MOU approval.

**V. ACCESS ASSESSMENT**

- a. Does the project exceed 1,000 net DVT?  Yes  No
- b. Is the project’s frontage 250 linear feet or more along an Avenue or Boulevard as classified by the City’s General Plan?  Yes  No
- c. Is the project’s building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City’s General Plan?  Yes  No

**VI. ACCESS ASSESSMENT CRITERIA**

If Yes to any of the above questions a., b., or c., the Transportation Assessment must assess the project’s potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the proposed project. Complete **Attachment C.1: Access Assessment Criteria** and attach to the draft Transportation Assessment to support the analysis. For the full scope of analysis, see Section 3.2 of the Transportation Assessment Guidelines.

**VII. SITE PLAN AND MAP OF STUDY AREA**

Please note that the site plan should be submitted to the Department of City Planning for cursory review.

Does the attached site plan and/or map of study area show	Yes	No	Not Applicable
Each study intersection and/or street segment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Project Vehicle Peak Hour trips at each study intersection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Project Vehicle Peak Hour trips at each project access point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Project trip distribution percentages at each study intersection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project driveways designed per LADOT MPP 321 (show widths and directions or lane assignment)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian access points and any pedestrian paths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian loading zones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delivery loading zone or area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle parking onsite	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle parking offsite (in public right-of-way)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*For mixed-use projects, also show the project trips and project trip distribution by land use category.



**VIII. FREEWAY SAFETY ANALYSIS SCREENING**

Will the project add 25 or more trips to any freeway off-ramp in either the AM or PM peak hour?  **Yes**  **No**  
 Provide a brief explanation or graphic identifying the number of project trips expected to be added to the nearby freeway off-ramps serving the project site. If Yes to the question above, a freeway ramp analysis is required.

**IX. CONTACT INFORMATION**

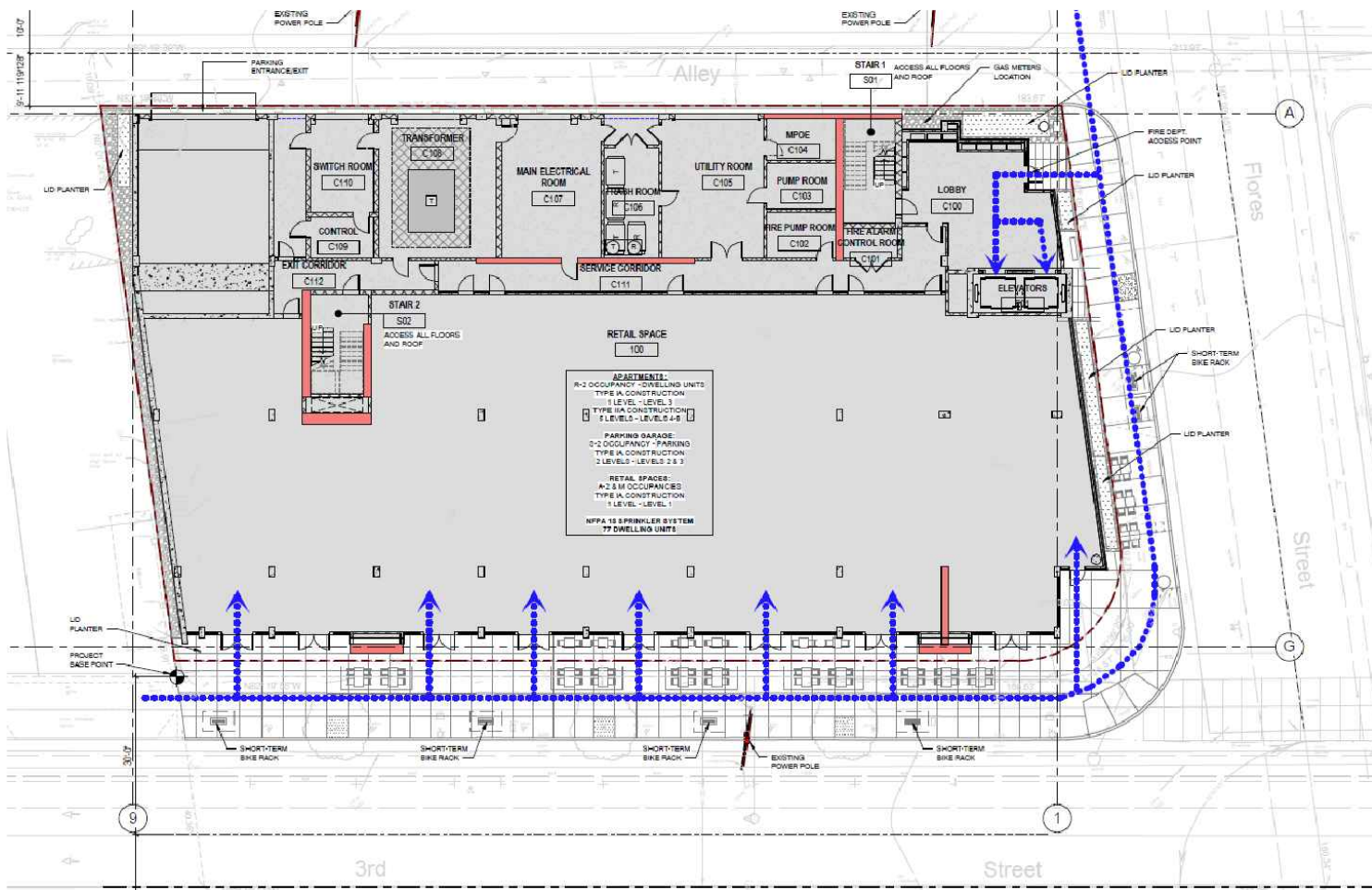
	<u>CONSULTANT</u>	<u>DEVELOPER</u>
Name:	_____	_____
Address:	_____	_____
Phone Number:	_____	_____
E-Mail:	_____	_____

Approved by:	x			x			
		Consultant's Representative			Date		LADOT Representative
Adjacent Municipality:							
			Approved by: (if applicable)		Representative		Date

\*\*MOUs are generally valid for two years after signing. If after two years a transportation assessment has not been submitted to LADOT, the developer's representative shall check with the appropriate LADOT office to determine if the terms of this MOU are still valid or if a new MOU is needed.

**ATTACHMENT 1(a)**

**CONCEPTUAL SITE PLAN – GROUND FLOOR**



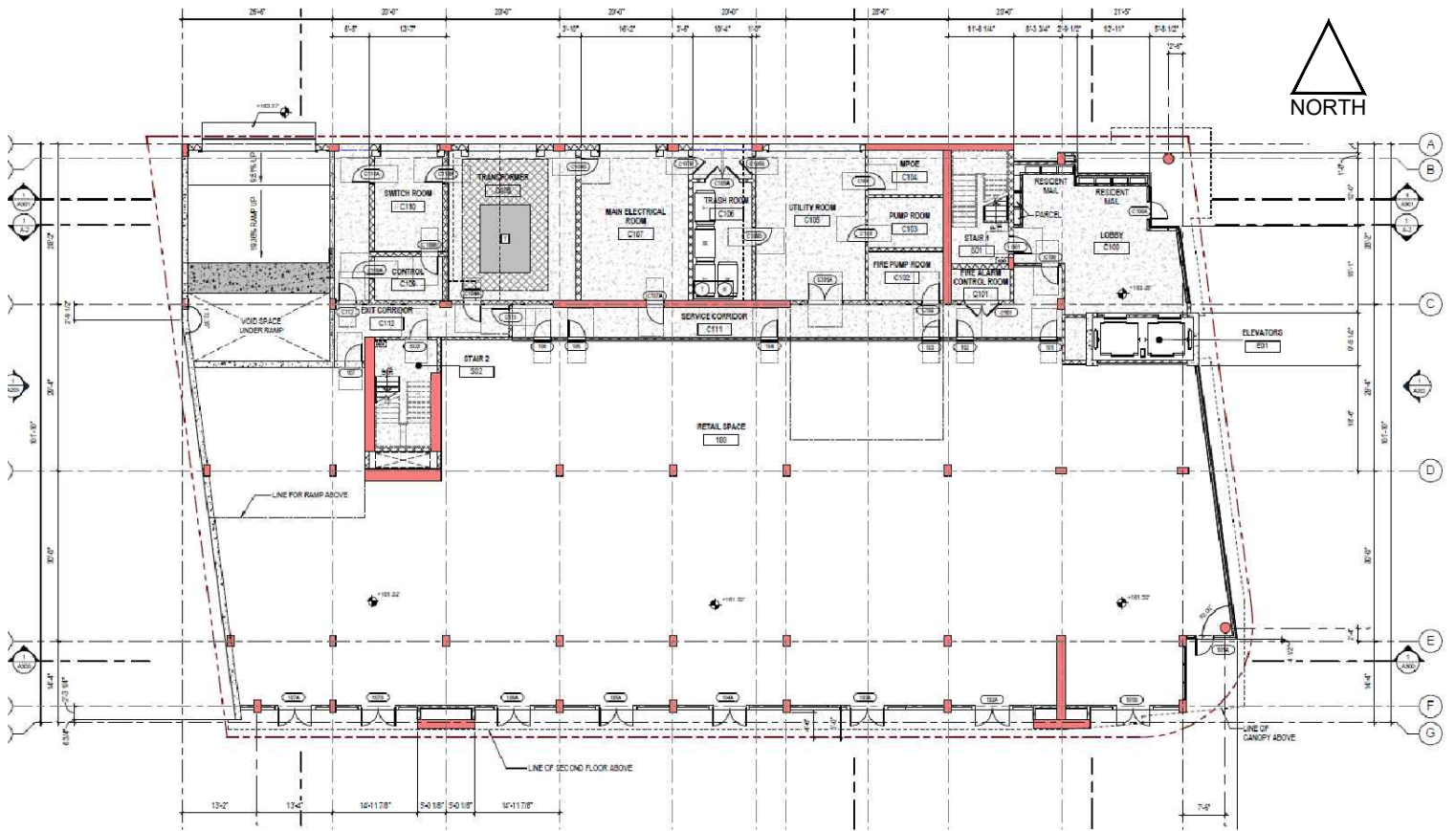
ATTACHMENT 1(a)

5/15/2023  
FN: JC38065/PROJ-SITE PLAN

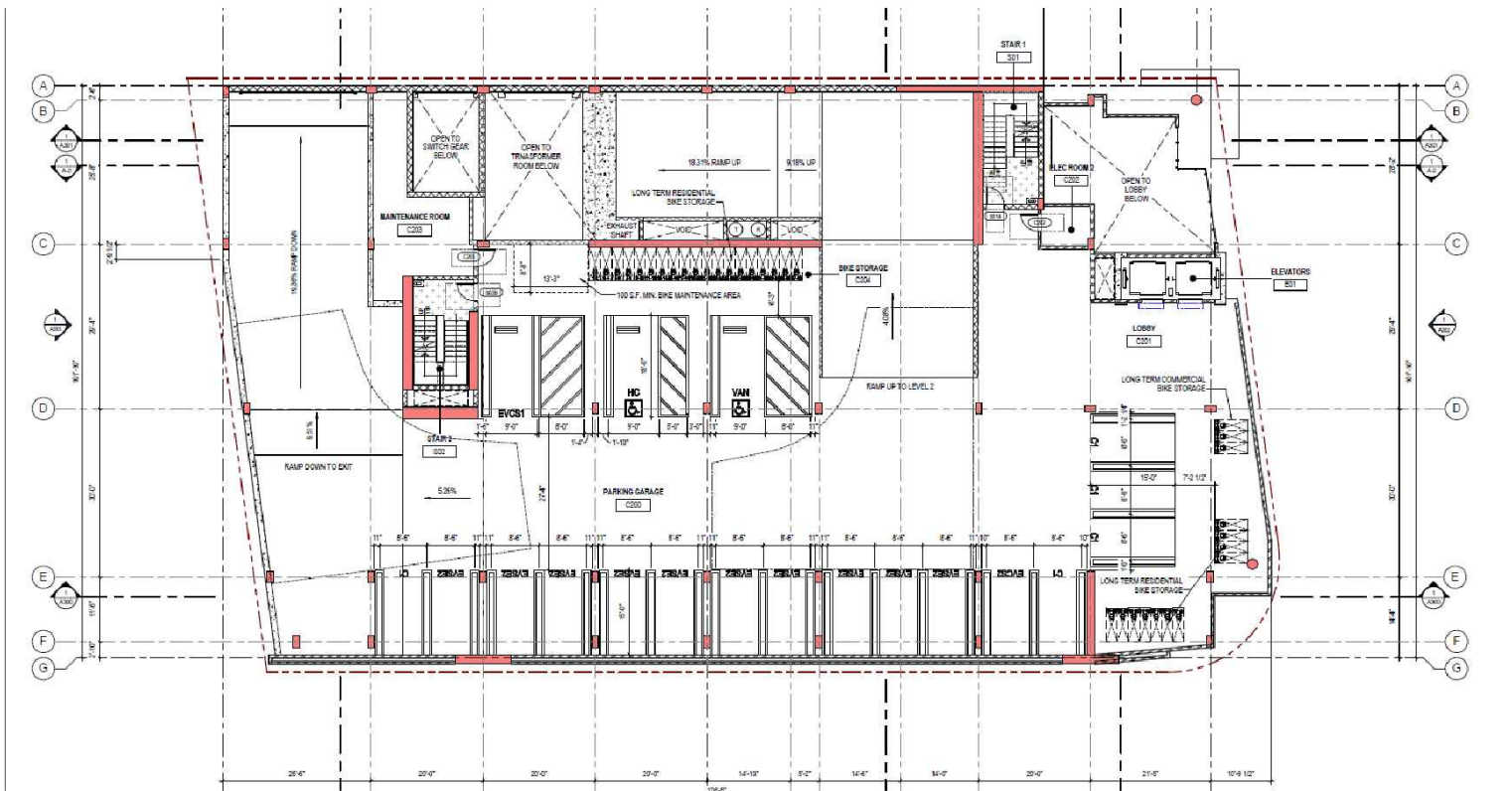


**ATTACHMENT 1(b)**

**CONCEPTUAL SITE PLAN – FLOORS 1 & 2**



FLOOR 1



FLOOR 2

ATTACHMENT 1(b)

CONCEPTUAL SITE PLAN - FLOORS 1 & 2



300 Corporate Pointe, Suite 470  
 Culver City, California 90230  
 Ph (310) 473 6508 F (310) 444 9771  
 WWW.KOACORP.COM

5/15/2023  
 FN: JC38065/PROJ-SITE PLAN

**ATTACHMENT 2**

**PROJECT WEEKDAY TRIP GENERATION SUMMARY**



Attachment 2: 8339 W. 3rd Street Mixed-Use Project - Weekday Trip Generation Summary<sup>1</sup>

Land Use	ITE Code	Intensity <sup>2</sup>	Average Weekday	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
<b>Trip Generation Rates</b>									
Multifamily Housing (Mid-Rise)	221	1 du	4.54	23%	77%	0.37	61%	39%	0.39
Strip Retail Plaza (<40k)	822	1 ksf	54.45	60%	40%	2.36	50%	50%	6.59
Fine Dining Restaurant	931	1 ksf	83.84	80%	20%	0.73	67%	33%	7.80
Coffee/Donut Shop without Drive-Through Window	936	1 ksf	535.71	51%	49%	93.08	50%	50%	32.29
Affordable Housing - Family (LADOT)	--	1 du	4.16	38%	62%	0.52	55%	45%	0.38
<b>Trip Generation Summary</b>									
Description	Size	Average Weekday <sup>7</sup>	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
<b>Proposed Uses</b>									
<b>Residential</b>									
Multifamily Housing (Mid-Rise) Baseline Vehicle Trips	69 du	313	6	20	26	16	11	27	
Affordable Housing (Family) Baseline Vehicle Trips	8 du	33	2	2	4	2	1	3	
Residential Total Baseline Vehicle Trips	77 du	346	8	22	30	18	12	30	
Residential Person Trips <sup>3</sup>		611	14	39	53	32	21	53	
Residential Internal Person Trips <sup>4</sup>		150	1	8	9	11	6	17	
Residential External Person Trips <sup>4</sup>		461	13	31	44	21	15	36	
Residential External Trips by Vehicle (including pass-by trips) <sup>4</sup>		179	5	12	17	8	6	14	
Residential External Trips by Transit <sup>4</sup>		29	1	2	3	1	1	2	
Residential External Trips by Walk/Bicycle <sup>4</sup>		104	3	7	10	5	3	8	
Residential External Trips by Vehicle (with pass-by trip adjustment) <sup>5</sup>		179	5	12	17	8	6	14	
<b>Commercial</b>									
Strip Retail Plaza (<40k)	4,000 sf	218	5	4	9	13	13	26	
Retail Total Person Trips <sup>3</sup>		387	9	7	16	23	23	46	
Retail Total Internal Person Trips <sup>4</sup>		181	1	1	2	14	13	27	
Retail Total External Person Trips <sup>4</sup>		206	8	6	14	9	10	19	
Retail External Trips by Vehicle (including pass-by trips) <sup>4</sup>		87	3	3	6	4	4	8	
Retail External Trips by Transit <sup>4</sup>		6	0	0	0	0	1	1	
Retail External Trips by Walk/Bicycle <sup>4</sup>		44	2	1	3	2	2	4	
Retail External Trips by Vehicle (with pass-by trip adjustment) <sup>6</sup>		44	2	1	3	2	2	4	
Fine Dining Restaurant	6,000 ksf	503	3	1	4	31	16	47	
Coffee/Donut Shop without Drive-Through Window	2,000 ksf	1,071	95	91	186	33	32	65	
Restaurant Total Baseline Vehicle Trips	8,000 ksf	1,574	98	92	190	64	48	112	
Restaurant Total Person Trips <sup>3</sup>		2,799	174	164	338	114	85	199	
Restaurant Total Internal Person Trips <sup>4</sup>		203	9	2	11	11	17	28	
Restaurant Total External Person Trips <sup>4</sup>		2,596	165	162	327	103	68	171	
Restaurant External Trips by Vehicle (including pass-by trips) <sup>4</sup>		1,037	66	65	131	41	27	68	
Restaurant External Trips by Transit <sup>4</sup>		146	9	9	18	6	4	10	
Restaurant External Trips by Walk/Bicycle <sup>4</sup>		599	38	37	75	24	16	40	
Restaurant External Trips by Vehicle (with pass-by trip adjustment) <sup>6</sup>		653	34	33	67	28	18	46	
<b>Proposed Project Total External Trips by Vehicle (including Pass-By Trips)</b>		<b>1,303</b>	<b>74</b>	<b>80</b>	<b>154</b>	<b>53</b>	<b>37</b>	<b>90</b>	
<b>Proposed Project Total External Trips by Vehicle</b>		<b>876</b>	<b>41</b>	<b>46</b>	<b>87</b>	<b>38</b>	<b>26</b>	<b>64</b>	

Notes:

- ITE *Trip Generation Manual* (11th Edition, 2021) trip generation rates and directional distributions applied for Land Use Codes (LUC) 221 (Multifamily Housing [Mid-Rise]), 822 (Strip Retail Plaza [<40k]), 931 (Fine Dining Restaurant), 936 (Coffee/Donut Shop without Drive-Through Window) to develop baseline vehicle trips for each proposed land use. LUC 931 does not include directional distribution for the AM peak hour of adjacent street traffic; the directional distribution for the AM peak hour of the generator was assumed. LUC 936 does have a daily trip rate. As such, a Daily-to-(AM+PM peak hour) factor was developed using LUC 937 (Coffee/Donut Shop with Drive-Through Window) and applied to the AM+PM trip rate to develop a daily trip rate for LUC 936. The General Urban/Suburban setting was used as it best represents the project location. The "Not Close to Rail Transit" land use subcategory was chosen for LUC 222 due to the lack of rail transit in the project vicinity. Trip generation rates and directional distributions for the affordable housing dwelling units were provided in the LADOT *Transportation Assessment Guidelines* (August 2022). Rates were selected for "Average" and "Family" affordable housing types to provide more conservative trip estimates. As the ITE General Urban/Suburban and LADOT affordable housing trip generation rates do not account for internal capture or substantial alternative mode usage, further adjustments were applied to the baseline vehicle trip calculations.
- The ITE *Trip Generation Handbook* (3rd Edition, 2017) recommended methodology for estimating the trip generation of a mixed-use development was utilized for the project. The ITE methodology follows the recommended procedures from the National Cooperative Highway Research Program (NCHRP) Report 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments* (Transportation Research Board, 2011). The NCHRP 684 Internal Trip Capture Estimation Tool spreadsheet provided on the ITE website was used, with worksheets attached on the following pages for the proposed uses.
- du = Dwelling Units; ksf = Thousands of Square Feet of Gross Leasable Floor Area or Gross Floor Area.
- See attached Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends and Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends from the NCHRP 684 Internal Trip Capture Estimation Tool for the proposed project uses.
- See attached Table 9-A (D): Internal and External Trips Summary (Entering Trips), Table 9-A (O): Internal and External Trips Summary (Exiting Trips), Table 9-P (D): Internal and External Trips Summary (Entering Trips), and Table 9-P (O): Internal and External Trips Summary (Exiting Trips) from the NCHRP 684 Internal Trip Capture Estimation Tool for the proposed project uses.
- No pass-by trips assumed for the proposed residential land use component.
- Per Attachment J of the LADOT *Transportation Assessment Guidelines* (August 2022), an average pass-by trip discount rate of 50 percent was applied for the proposed retail component (as it is less than 50,000 square feet). For the proposed fine dining and coffee shop components, Attachment J recommends pass-by trip discounts of 10 percent and 50 percent, respectively. As the trips associated with the two restaurant uses were combined as part of the internal trip capture estimation, the pass-by trip discount rates were blended for each analysis time period based on the proportion of trips from each component restaurant use. For example, in the AM peak hour, with 186 coffee shop trips (at 50 percent) and 4 fine dining trips (at 10 percent) summing to 190 baseline restaurant vehicle trips, the blended average is approximately 49 percent. The blended pass-by discount rates were 37 percent and 33 percent for the weekday daily and PM peak-hour periods, respectively.
- The ITE *Trip Generation Handbook* provides no guidance for estimating daily trips for mixed-use developments. Therefore, daily trips for each land use's subcategory (person trips, internal person trips, external person trips, external trips by mode) were estimated by developing a Daily-to-(AM+PM peak hour) factor using the land use's baseline vehicle trips and then applying this factor to each subcategory's combined (AM+PM) peak-hour trips. For commercial land uses with pass-by adjustments, the daily external trips by vehicle (with pass-by trip adjustment) were determined by applying the appropriate pass-by adjustment to the daily external trips by vehicle (including pass-by trips).

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	8339 W. 3rd Street Mixed-Use Project	Organization:	KOA Corporation		
Project Location:	8339 W. 3rd Street, Los Angeles	Performed By:	HM		
Scenario Description:	Proposed Project	Date:	15-May-23		
Analysis Year:	2027	Checked By:	RK		
Analysis Period:	AM Street Peak Hour	Date:	5/18/2023		

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips <sup>3</sup>		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	4,000	sf	9	5	4
Restaurant	931, 936	8,000	sf	190	98	92
Cinema/Entertainment				0		
Residential	221, Aff.	77	du	30	8	22
Hotel				0		
All Other Land Uses <sup>2</sup>				0		
				229	111	118

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized
Office						
Retail	1.78	5%	23%	1.78	5%	23%
Restaurant	1.78	5%	23%	1.78	5%	23%
Cinema/Entertainment						
Residential	1.78	5%	23%	1.78	5%	23%
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail	0		1	0	0	0
Restaurant	0	1		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	8	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	407	197	210
Internal Capture Percentage	5%	6%	5%
External Vehicle-Trips <sup>5</sup>	154	74	80
External Transit-Trips <sup>6</sup>	21	10	11
External Non-Motorized Trips <sup>6</sup>	88	43	45

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	11%	14%
Restaurant	5%	1%
Cinema/Entertainment	N/A	N/A
Residential	7%	21%
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

<b>Project Name:</b>	8339 W. 3rd Street Mixed-Use Project
<b>Analysis Period:</b>	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.78	5	9	1.78	4	7
Restaurant	1.78	98	174	1.78	92	164
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.78	8	14	1.78	22	39
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	2		1	0	1	0
Restaurant	51	23		0	7	5
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	8	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	40	0	0	0
Retail	0		87	0	0	0
Restaurant	0	1		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	2	35	0		0
Hotel	0	0	10	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	0	0	0	0	0	0
Retail	1	8	9	3	0	2
Restaurant	9	165	174	66	9	38
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	13	14	5	1	3
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	0	0	0	0	0	0
Retail	1	6	7	3	0	1
Restaurant	2	162	164	65	9	37
Cinema/Entertainment	0	0	0	0	0	0
Residential	8	31	39	12	2	7
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	0	0	0	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A  
<sup>2</sup>Person-Trips  
<sup>3</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator  
\*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	8339 W. 3rd Street Mixed-Use Project	Organization:	KOA Corporation		
Project Location:	8339 W. 3rd Street, Los Angeles	Performed By:	HM		
Scenario Description:	Proposed Project	Date:	15-May-23		
Analysis Year:	2027	Checked By:	RK		
Analysis Period:	PM Street Peak Hour	Date:	5/18/2023		

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips <sup>3</sup>		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	4,000	sf	26	13	13
Restaurant	931, 936	8,000	sf	112	64	48
Cinema/Entertainment				0		
Residential	221, Aff.	77	du	30	18	12
Hotel				0		
All Other Land Uses <sup>2</sup>				0		
				168	95	73

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized
Office						
Retail	1.78	5%	23%	1.78	5%	23%
Restaurant	1.78	5%	23%	1.78	5%	23%
Cinema/Entertainment						
Residential	1.78	5%	23%	1.78	5%	23%
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		7	0	6	0
Restaurant	0	12		0	5	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	2	4	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	298	169	129
Internal Capture Percentage	24%	21%	28%
External Vehicle-Trips <sup>5</sup>	90	53	37
External Transit-Trips <sup>6</sup>	13	7	6
External Non-Motorized Trips <sup>6</sup>	52	31	21

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	61%	57%
Restaurant	10%	20%
Cinema/Entertainment	N/A	N/A
Residential	34%	29%
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

<b>Project Name:</b>	8339 W. 3rd Street Mixed-Use Project
<b>Analysis Period:</b>	PM Street Peak Hour

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.78	13	23	1.78	13	23
Restaurant	1.78	64	114	1.78	48	85
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.78	18	32	1.78	12	21
Hotel	1.00	0	0	1.00	0	0

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		7	1	6	1
Restaurant	3	35		7	15	6
Cinema/Entertainment	0	0	0		0	0
Residential	1	9	4	0		1
Hotel	0	0	0	0	0	

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		2	2	0	1	0
Retail	0		33	0	15	0
Restaurant	0	12		0	5	0
Cinema/Entertainment	0	1	3		1	0
Residential	0	2	16	0		0
Hotel	0	0	6	0	0	

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	0	0	0	0	0	0
Retail	14	9	23	4	0	2
Restaurant	11	103	114	41	6	24
Cinema/Entertainment	0	0	0	0	0	0
Residential	11	21	32	8	1	5
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	0	0	0	0	0

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	0	0	0	0	0	0
Retail	13	10	23	4	1	2
Restaurant	17	68	85	27	4	16
Cinema/Entertainment	0	0	0	0	0	0
Residential	6	15	21	6	1	3
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	0	0	0	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

<sup>2</sup>Person-Trips

<sup>3</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

\*Indicates computation that has been rounded to the nearest whole number.

Table 7.1a Adjusted Internal Trip Capture Rates for Trip Origins within a Multi-Use Development

Land Use Pairs		Weekday	
		AM Peak Hour	PM Peak Hour
From OFFICE	To Office	0.0%	0.0%
	To Retail	28.0%	20.0%
	To Restaurant	63.0%	4.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	1.0%	2.0%
	To Hotel	0.0%	0.0%
From RETAIL	To Office	29.0%	2.0%
	To Retail	0.0%	0.0%
	To Restaurant	13.0%	29.0%
	To Cinema/Entertainment	0.0%	4.0%
	To Residential	14.0%	26.0%
	To Hotel	0.0%	5.0%
From RESTAURANT	To Office	31.0%	3.0%
	To Retail	14.0%	41.0%
	To Restaurant	0.0%	0.0%
	To Cinema/Entertainment	0.0%	8.0%
	To Residential	4.0%	18.0%
	To Hotel	3.0%	7.0%
From CINEMA/ENTERTAINMENT	To Office	0.0%	2.0%
	To Retail	0.0%	21.0%
	To Restaurant	0.0%	31.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	8.0%
	To Hotel	0.0%	2.0%
From RESIDENTIAL	To Office	2.0%	4.0%
	To Retail	1.0%	42.0%
	To Restaurant	20.0%	21.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	0.0%
	To Hotel	0.0%	3.0%
From HOTEL	To Office	75.0%	0.0%
	To Retail	14.0%	16.0%
	To Restaurant	9.0%	68.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	2.0%
	To Hotel	0.0%	0.0%

Table 7.2a Adjusted Internal Trip Capture Rates for Trip Destinations within a Multi-Use Development

Land Use Pairs		Weekday	
		AM Peak Hour	PM Peak Hour
To OFFICE	From Office	0.0%	0.0%
	From Retail	4.0%	31.0%
	From Restaurant	14.0%	30.0%
	From Cinema/Entertainment	0.0%	6.0%
	From Residential	3.0%	57.0%
	From Hotel	3.0%	0.0%
To RETAIL	From Office	32.0%	8.0%
	From Retail	0.0%	0.0%
	From Restaurant	8.0%	50.0%
	From Cinema/Entertainment	0.0%	4.0%
	From Residential	17.0%	10.0%
	From Hotel	4.0%	2.0%
To RESTAURANT	From Office	23.0%	2.0%
	From Retail	50.0%	29.0%
	From Restaurant	0.0%	0.0%
	From Cinema/Entertainment	0.0%	3.0%
	From Residential	20.0%	14.0%
	From Hotel	6.0%	5.0%
To CINEMA/ENTERTAINMENT	From Office	0.0%	1.0%
	From Retail	0.0%	26.0%
	From Restaurant	0.0%	32.0%
	From Cinema/Entertainment	0.0%	0.0%
	From Residential	0.0%	0.0%
	From Hotel	0.0%	0.0%
To RESIDENTIAL	From Office	0.0%	4.0%
	From Retail	2.0%	46.0%
	From Restaurant	5.0%	16.0%
	From Cinema/Entertainment	0.0%	4.0%
	From Residential	0.0%	0.0%
	From Hotel	0.0%	0.0%
To HOTEL	From Office	0.0%	0.0%
	From Retail	0.0%	17.0%
	From Restaurant	4.0%	71.0%
	From Cinema/Entertainment	0.0%	1.0%
	From Residential	0.0%	12.0%
	From Hotel	0.0%	0.0%

**ATTACHMENT 3**

**VMT CALCULATOR OUTPUT REPORTS**



# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



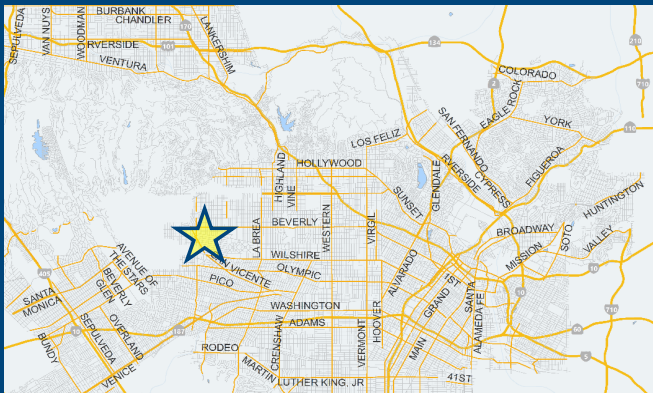
*Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?*

## Project Information

Project:

Scenario:  [WWW](#)

Address:



**Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?**

Yes  No

## Existing Land Use

Land Use Type	Value	Unit
Housing   Single Family		DU

[Click here to add a single custom land use type \(will be included in the above list\)](#)

## Proposed Project Land Use

Land Use Type	Value	Unit
Retail   Fast-Food Restaurant	2	ksf
Housing   Multi-Family	69	DU
Housing   Affordable Housing - Family	8	DU
Retail   General Retail	4	ksf
Retail   Quality Restaurant	6	ksf
Retail   Fast-Food Restaurant	2	ksf

[Click here to add a single custom land use type \(will be included in the above list\)](#)

## Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	995 Daily Vehicle Trips
0 Daily VMT	6,916 Daily VMT
<b>Tier 1 Screening Criteria</b>	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
<b>Tier 2 Screening Criteria</b>	
The net increase in daily trips < 250 trips	995 Net Daily Trips
The net increase in daily VMT ≤ 0	6,916 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	12,000 ksf
<b>The proposed project is required to perform VMT analysis.</b>	



# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

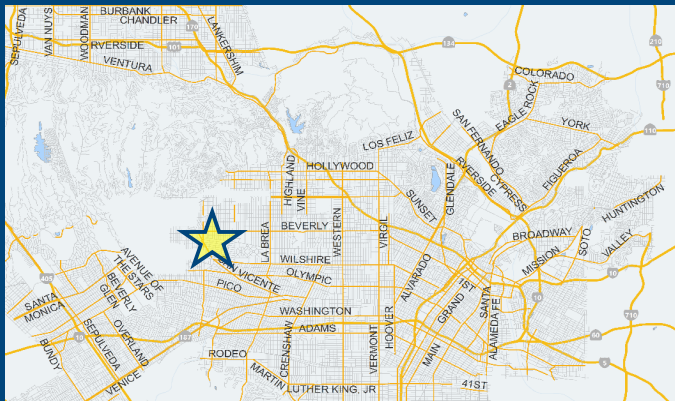


## Project Information

**Project:** 8339 W. 3rd Street Mixed-Use Project

**Scenario:** With Project

**Address:** 8339 W 3RD ST, 90048



Proposed Project Land Use Type	Value	Unit
Housing   Multi-Family	69	DU
Housing   Affordable Housing - Family	8	DU
Retail   General Retail	4	ksf
Retail   Quality Restaurant	6	ksf
Retail   Fast-Food Restaurant	2	ksf

## TDM Strategies

Select each section to show individual strategies  
Use  to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
<b>Max Home Based TDM Achieved?</b>	No	No
<b>Max Work Based TDM Achieved?</b>	No	No
<b>A</b>	<b>Parking</b>	
<b>B</b>	<b>Transit</b>	
<b>C</b>	<b>Education &amp; Encouragement</b>	
<b>D</b>	<b>Commute Trip Reductions</b>	
<b>E</b>	<b>Shared Mobility</b>	
<b>F</b>	<b>Bicycle Infrastructure</b>	
Implement/Improve On-street Bicycle Facility <small>Select Proposed Prj or Mitigation to include this strategy</small>		
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation		
Include Bike Parking Per LAMC <small>Select Proposed Prj or Mitigation to include this strategy</small>		
<input checked="" type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation		
Include Secure Bike Parking and Showers <small>Select Proposed Prj or Mitigation to include this strategy</small>		
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation		
<b>G</b>	<b>Neighborhood Enhancement</b>	

## Analysis Results

Proposed Project	With Mitigation
<b>865</b> Daily Vehicle Trips	<b>865</b> Daily Vehicle Trips
<b>6,014</b> Daily VMT	<b>6,014</b> Daily VMT
<b>4.1</b> Household VMT per Capita	<b>4.1</b> Household VMT per Capita
<b>N/A</b> Work VMT per Employee	<b>N/A</b> Work VMT per Employee
<b>Significant VMT Impact?</b>	
<b>Household: No</b> Threshold = 6.0 15% Below APC	<b>Household: No</b> Threshold = 6.0 15% Below APC
<b>Work: N/A</b> Threshold = 7.6 15% Below APC	<b>Work: N/A</b> Threshold = 7.6 15% Below APC



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

Project Information			
	Land Use Type	Value	Units
<b>Housing</b>	<i>Single Family</i>	0	DU
	<b>Multi Family</b>	69	DU
	<i>Townhouse</i>	0	DU
	<i>Hotel</i>	0	Rooms
	<i>Motel</i>	0	Rooms
<b>Affordable Housing</b>	<b>Family</b>	8	DU
	<i>Senior</i>	0	DU
	<i>Special Needs</i>	0	DU
	<i>Permanent Supportive</i>	0	DU
<b>Retail</b>	<b>General Retail</b>	4.000	ksf
	<i>Furniture Store</i>	0.000	ksf
	<i>Pharmacy/Drugstore</i>	0.000	ksf
	<i>Supermarket</i>	0.000	ksf
	<i>Bank</i>	0.000	ksf
	<i>Health Club</i>	0.000	ksf
	<i>High-Turnover Sit-Down</i>	0.000	ksf
	<i>Restaurant</i>	0.000	ksf
	<b>Fast-Food Restaurant</b>	2.000	ksf
	<b>Quality Restaurant</b>	6.000	ksf
	<i>Auto Repair</i>	0.000	ksf
	<i>Home Improvement</i>	0.000	ksf
	<i>Free-Standing Discount</i>	0.000	ksf
	<i>Movie Theater</i>	0	Seats
<i>Office</i>	<i>General Office</i>	0.000	ksf
	<i>Medical Office</i>	0.000	ksf
<i>Industrial</i>	<i>Light Industrial</i>	0.000	ksf
	<i>Manufacturing</i>	0.000	ksf
	<i>Warehousing/Self-Storage</i>	0.000	ksf
<i>School</i>	<i>University</i>	0	Students
	<i>High School</i>	0	Students
	<i>Middle School</i>	0	Students
	<i>Elementary</i>	0	Students
	<i>Private School (K-12)</i>	0	Students
<i>Other</i>		0	Trips

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

<b>Analysis Results</b>			
Total Employees: 45 Total Population: 181			
<b>Proposed Project</b>		<b>With Mitigation</b>	
865 6,014	Daily Vehicle Trips Daily VMT	865 6,014	Daily Vehicle Trips Daily VMT
4.1	Household VMT per Capita	4.1	Household VMT per Capita
N/A	Work VMT per Employee	N/A	Work VMT per Employee
<b>Significant VMT Impact?</b>			
<b>APC: Central</b>			
Impact Threshold: 15% Below APC Average Household = 6.0 Work = 7.6			
<b>Proposed Project</b>		<b>With Mitigation</b>	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0 Work > 7.6	No N/A	Household > 6.0 Work > 7.6	No N/A

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

TDM Strategy Inputs				
Strategy Type	Description	Proposed Project	Mitigations	
Parking	Reduce parking supply	City code parking provision (spaces)	223	223
		Actual parking provision (spaces)	40	40
	Unbundle parking	Monthly cost for parking (\$)	\$0	\$0
	Parking cash-out	Employees eligible (%)	0%	0%
	Price workplace parking	Daily parking charge (\$)	\$0.00	\$0.00
		Employees subject to priced parking (%)	0%	0%
	Residential area parking permits	Cost of annual permit (\$)	\$0	\$0
(cont. on following page)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

TDM Strategy Inputs, Cont.				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Transit</b>	<i>Reduce transit headways</i>	<i>Reduction in headways (increase in frequency) (%)</i>	0%	
		<i>Existing transit mode share (as a percent of total daily trips) (%)</i>	0%	
		<i>Lines within project site improved (&lt;50%, &gt;=50%)</i>	0	
	<i>Implement neighborhood shuttle</i>	<i>Degree of implementation (low, medium, high)</i>	0	0
		<i>Employees and residents eligible (%)</i>	0%	0%
	<i>Transit subsidies</i>	<i>Employees and residents eligible (%)</i>	0%	0%
<i>Amount of transit subsidy per passenger (daily equivalent) (\$)</i>		\$0.00	\$0.00	
<b>Education &amp; Encouragement</b>	<i>Voluntary travel behavior change program</i>	<i>Employees and residents participating (%)</i>	0%	
	<i>Promotions and marketing</i>	<i>Employees and residents participating (%)</i>	0%	
(cont. on following page)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

TDM Strategy Inputs, Cont.				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Commute Trip Reductions</b>	<i>Required commute trip reduction program</i>	<i>Employees participating (%)</i>	0%	0%
	<i>Alternative Work Schedules and Telecommute</i>	<i>Employees participating (%)</i>	0%	0%
		<i>Type of program</i>	0	0
		<i>Degree of implementation (low, medium, high)</i>	0	0
	<i>Employer sponsored vanpool or shuttle</i>	<i>Employees eligible (%)</i>	0%	0%
		<i>Employer size (small, medium, large)</i>	0	0
	<i>Ride-share program</i>	<i>Employees eligible (%)</i>	0%	0%
<b>Shared Mobility</b>	<i>Car share</i>	<i>Car share project setting (Urban, Suburban, All Other)</i>	0	0
	<i>Bike share</i>	<i>Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)</i>	0	0
	<i>School carpool program</i>	<i>Level of implementation (Low, Medium, High)</i>	0	0
(cont. on following page)				



TDM Strategy Inputs, Cont.				
Strategy Type		Description	Proposed Project	Mitigations
<b>Bicycle Infrastructure</b>	<i>Implement/Improve on-street bicycle facility</i>	<i>Provide bicycle facility along site (Yes/No)</i>	0	0
	<b>Include Bike parking per LAMC</b>	<b>Meets City Bike Parking Code (Yes/No)</b>	Yes	Yes
	<i>Include secure bike parking and showers</i>	<i>Includes indoor bike parking/lockers, showers, &amp; repair station (Yes/No)</i>	0	0
<b>Neighborhood Enhancement</b>	<i>Traffic calming improvements</i>	<i>Streets with traffic calming improvements (%)</i>	0%	0%
		<i>Intersections with traffic calming improvements (%)</i>	0%	0%
	<i>Pedestrian network improvements</i>	<i>Included (within project and connecting off-site/within project only)</i>	0	0



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
<b>Parking</b>	Reduce parking supply	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
<b>Transit</b>	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Education &amp; Encouragement</b>	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Commute Trip Reductions</b>	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Shared Mobility</b>	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		<b>Bicycle Infrastructure</b>	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
<b>Neighborhood Enhancement</b>	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

### Final Combined & Maximum TDM Effect

	Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
	<b>COMBINED TOTAL</b>	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
<b>MAX. TDM EFFECT</b>	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%

$$= \text{Minimum}(X\%, 1 - [(1-A) * (1-B) \dots])$$

where X%=

<b>PLACE</b>	urban	75%
<b>TYPE</b>	compact infill	40%
<b>MAX:</b>	suburban center	20%
	suburban	15%

Note:  $(1 - [(1-A) * (1-B) \dots])$  reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B, ...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G*) for further discussion of dampening.

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 4: MXD Methodology

Date: May 22, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.3

### MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	69	-21.7%	54	6.2	428	335
Home Based Other Production	190	-42.6%	109	4.8	912	523
Non-Home Based Other Production	279	-6.5%	261	7.1	1,981	1,853
Home-Based Work Attraction	66	-33.3%	44	8.4	554	370
Home-Based Other Attraction	526	-37.1%	331	7.5	3,945	2,483
Non-Home Based Other Attraction	211	-7.1%	196	6.9	1,456	1,352

### MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-13.0%	47	291	-13.0%	47	291
Home Based Other Production	-13.0%	95	455	-13.0%	95	455
Non-Home Based Other Production	-13.0%	227	1,611	-13.0%	227	1,611
Home-Based Work Attraction	-13.0%	38	322	-13.0%	38	322
Home-Based Other Attraction	-13.0%	288	2,159	-13.0%	288	2,159
Non-Home Based Other Attraction	-13.0%	170	1,176	-13.0%	170	1,176

### MXD VMT Methodology Per Capita & Per Employee

Total Population: 181

Total Employees: 45

APC: Central

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
<i>Total Home Based Production VMT</i>	<b>746</b>	<b>746</b>
<i>Total Home Based Work Attraction VMT</i>	<b>322</b>	<b>322</b>
<i>Total Home Based VMT Per Capita</i>	<b>4.1</b>	<b>4.1</b>
<i>Total Work Based VMT Per Employee</i>	<b>N/A</b>	<b>N/A</b>

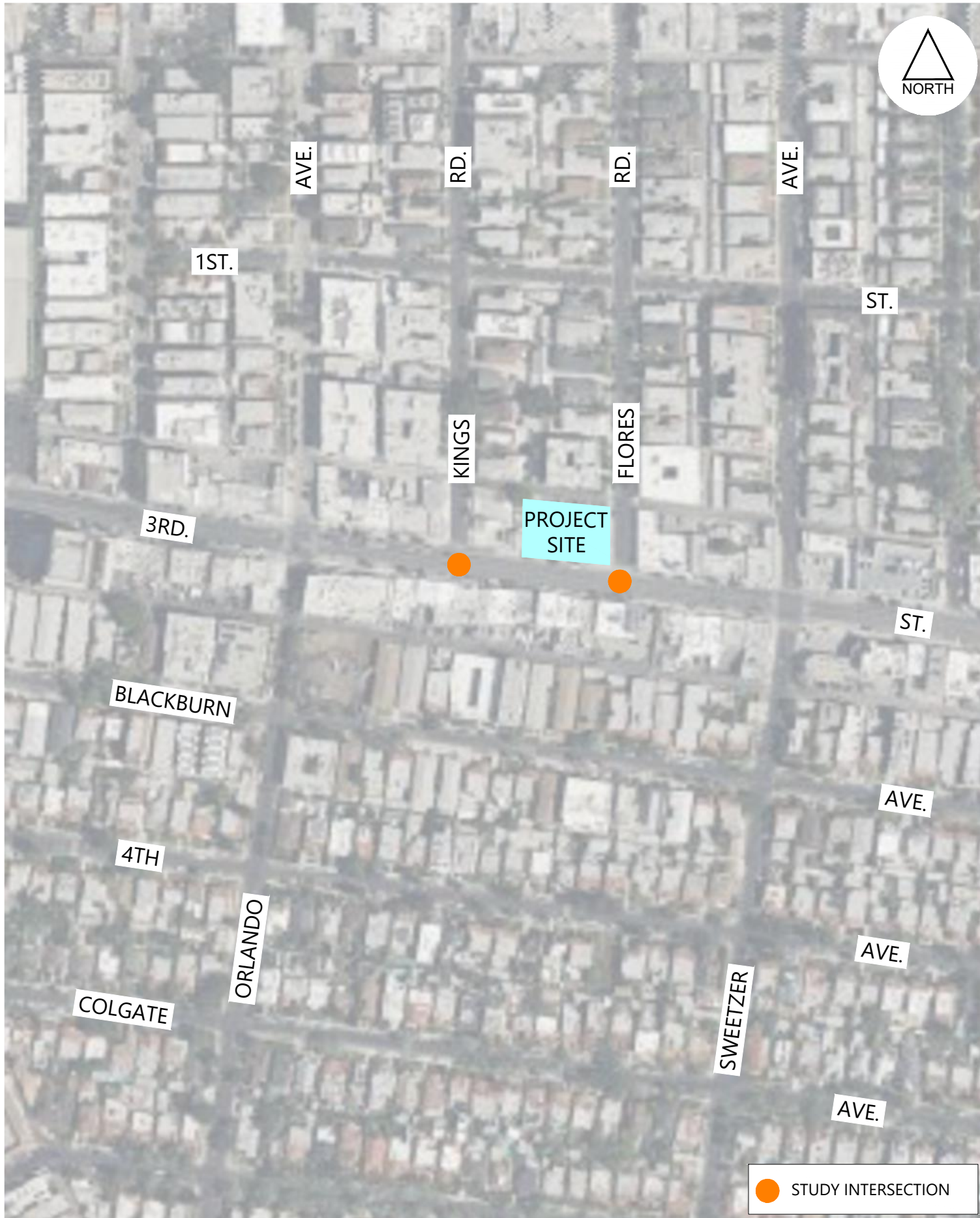
## **ATTACHMENT 4**

### **RELATED PROJECTS LIST**

The LADOT related projects including development projects within a 0.5-mile radius of the project site will be requested. City Planning projects within the Wilshire Community Plan Area and projects in the cities of West Hollywood and Beverly Hills will also be reviewed to supplement the LADOT list.

**ATTACHMENT 5**

**PROJECT SITE VICINITY AND PROPOSED STUDY INTERSECTIONS**



ATTACHMENT 5

5/15/2023  
FN: J:\2023\JC38065 LA 8339 W 3rd St Mixed Use TA\Documents\Figs\STUDY-INTS

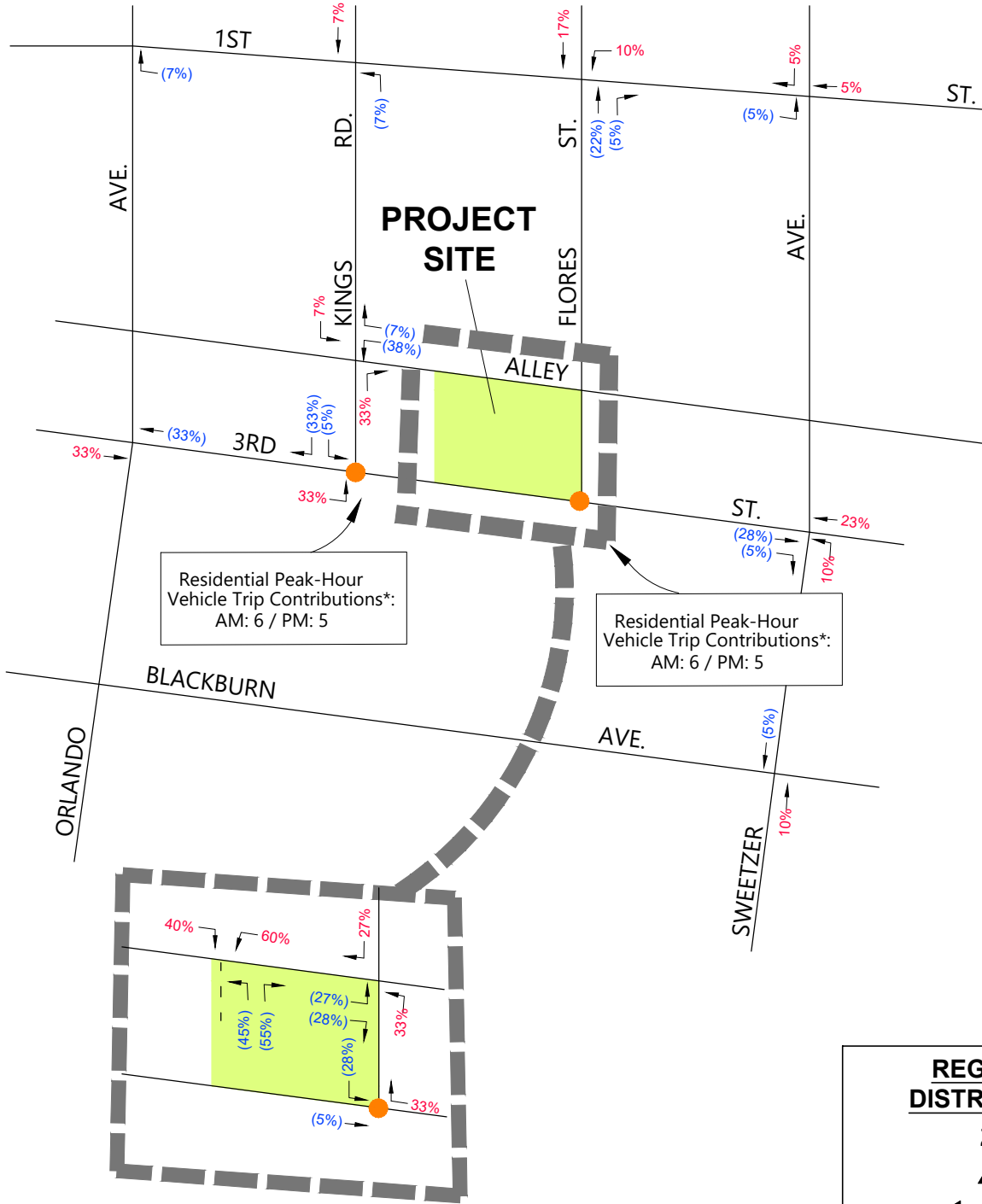
PROJECT SITE VICINITY AND PROPOSED STUDY INTERSECTIONS



300 Corporate Pointe, Suite 470  
Culver City, California 90230  
Ph (310) 473 6508 F (310) 444 9771  
WWW.KOACORP.COM

**ATTACHMENT 6**

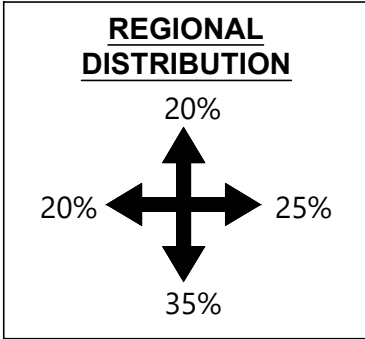
**PROJECT TRIP DISTRIBUTION PERCENTAGES  
AND PROJECT PEAK-HOUR VEHICLE TRIPS BY LAND USE**



Residential Peak-Hour Vehicle Trip Contributions\*:  
AM: 6 / PM: 5

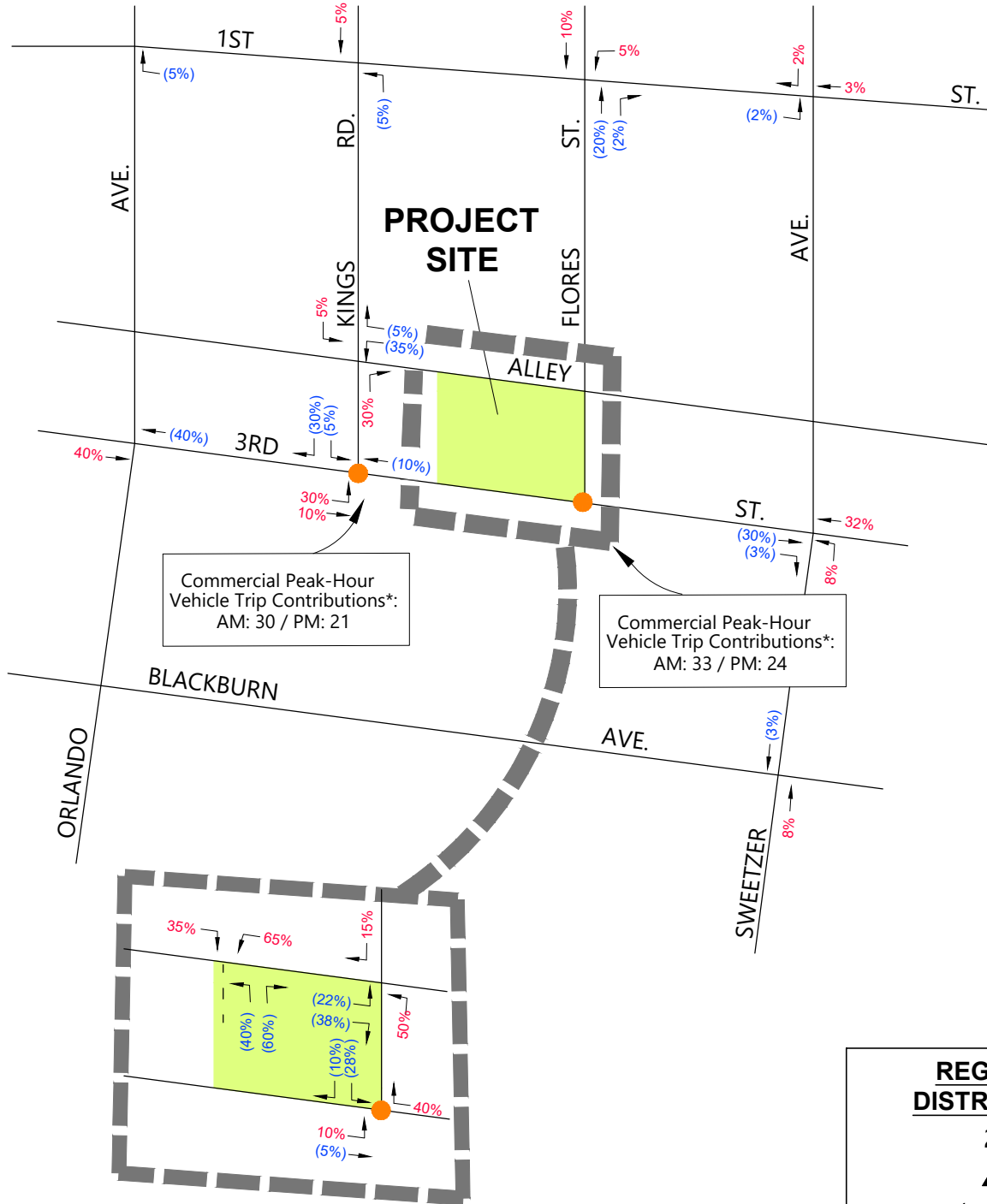
Residential Peak-Hour Vehicle Trip Contributions\*:  
AM: 6 / PM: 5

**Residential Peak-Hour Vehicle Trip Contributions:**  
(new driveway, pass-by trips included):  
Inbound Driveway - AM: 5 / PM: 8  
Outbound Driveway - AM: 12 / PM: 6

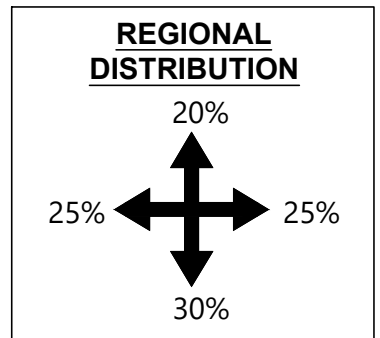


**LEGEND:**  
 XX% - INBOUND PERCENTAGE  
 (XX%) - OUTBOUND PERCENTAGE  
 ● - STUDY INTERSECTION  
 \* - DOES NOT INCLUDE PASS-BY VOLUMES





**Commercial Peak-Hour Vehicle Trip Contributions:**  
(new driveway, pass-by trips included):  
Inbound Driveway - AM: 69 / PM: 45  
Outbound Driveway - AM: 68 / PM: 31



**LEGEND:**  
 XX% - INBOUND PERCENTAGE  
 (XX%) - OUTBOUND PERCENTAGE  
 ● - STUDY INTERSECTION  
 \* - DOES NOT INCLUDE PASS-BY VOLUMES

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**APPENDIX B**

**LADOT ATTACHMENT D: PLAN CONSISTENCY WORKSHEET**

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## Attachment D: Plan, Policy, and Program Consistency Worksheet

### Plans, Policies and Programs Consistency Worksheet

The worksheet provides a structured approach to evaluate the threshold T-1 question below, that asks whether a project conflicts with a program, plan, ordinance or policy addressing the circulation system. The intention of the worksheet is to streamline the project review by highlighting the most relevant plans, policies and programs when assessing potential impacts to the City's circulation system.

**Threshold T-1:** Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?

This worksheet does not include an exhaustive list of City policies, and does not include community plans, specific plans, or any area-specific regulatory overlays. The Department of City Planning project planner will need to be consulted to determine if the project would obstruct the City from carrying out a policy or program in a community plan, specific plan, streetscape plan, or regulatory overlay that was adopted to support multimodal transportation options or public safety. LADOT staff should be consulted if a project would lead to a conflict with a mobility investment in the Public Right of Way (PROW) that is currently undergoing planning, design, or delivery. This worksheet must be completed for all projects that meet the Section I. Screening Criteria. For description of the relevant planning documents, **see Attachment D.1.**

For any response to the following questions that checks the box in **bold text** (i.e.  **Yes** or  **No**), further analysis is needed to demonstrate that the project does not conflict with a plan, policy, or program.

#### I. SCREENING CRITERIA FOR POLICY ANALYSIS

If the answer is 'yes' to any of the following questions, further analysis will be required:

Does the project require a discretionary action that requires the decision maker to find that the project would substantially conform to the purpose, intent and provisions of the General Plan?

Yes  No

Is the project known to directly conflict with a transportation plan, policy, or program adopted to support multimodal transportation options or public safety?

Yes  No

Is the project required to or proposing to make any voluntary modifications to the public right-of-way (i.e., dedications and/or improvements in the right-of-way, reconfigurations of curb line, etc.)?

Yes  No

#### II. PLAN CONSISTENCY ANALYSIS

##### A. Mobility Plan 2035 PROW Classification Standards for Dedications and Improvements

These questions address potential conflict with:



Plan, Policy, and Program Consistency Worksheet

**Mobility Plan 2035 Policy 2.1** – Adaptive Reuse of Streets. Design, plan, and operate streets to serve multiple purposes and provide flexibility in design to adapt to future demands.

**Mobility Plan 2035 Policy 2.3** – Pedestrian Infrastructure. Recognize walking as a component of every trip, and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.

**Mobility Plan 2035 Policy 3.2** – People with Disabilities. Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.

**Mobility Plan 2035 Street Designations and Standard Roadway Dimensions**

A.1 Does the project include additions or new construction along a street designated as a Boulevard I, and II, and/or Avenue I, II, or III on property zoned for R3 or less restrictive zone?  Yes  No

A.2 If **A.1 is yes**, is the project required to make additional dedications or improvements to the Public Right of Way as demonstrated by the street designation.  Yes  No  N/A

A.3 If **A.2 is yes**, is the project making the dedications and improvements as necessary to meet the designated dimensions of the fronting street (Boulevard I, and II, or Avenue I, II, or III)?  Yes  No  N/A

If the answer is to **A.1 or A.2 is NO, or to A.1, A.2 and A.3. is YES**, then the project does not conflict with the dedication and improvement requirements that are needed to comply with the Mobility Plan 2035 Street Designations and Standard Roadway Dimensions.

A.4 If the answer to **A.3. is NO**, is the project applicant asking to waive from the dedication standards?  Yes  No  N/A

Lists any streets subject to dedications or voluntary dedications and include existing roadway and sidewalk widths, required roadway and sidewalk widths, and proposed roadway and sidewalk width or waivers.

Frontage 1 Existing PROW'/Curb' : Existing \_\_\_\_\_ Required \_\_\_\_\_ Proposed \_\_\_\_\_

Frontage 2 Existing PROW'/Curb' : Existing \_\_\_\_\_ Required \_\_\_\_\_ Proposed \_\_\_\_\_

Frontage 3 Existing PROW'/Curb' : Existing \_\_\_\_\_ Required \_\_\_\_\_ Proposed \_\_\_\_\_

Frontage 4 Existing PROW'/Curb' : Existing \_\_\_\_\_ Required \_\_\_\_\_ Proposed \_\_\_\_\_

If the answer to **A.4 is NO**, the project is inconsistent with Mobility Plan 2035 street designations and must file for a waiver of street dedication and improvement.

If the answer to **A.4 is YES**, additional analysis is necessary to determine if the dedication and/or improvements are necessary to meet the City's mobility needs for the next 20 years. The following factors may contribute to determine if the dedication or improvement is necessary:

Is the project site along any of the following networks identified in the City's Mobility Plan?



## Plan, Policy, and Program Consistency Worksheet

- Transit Enhanced Network
- Bicycle Enhanced Network
- Bicycle Lane Network
- Pedestrian Enhanced District
- Neighborhood Enhanced Network

To see the location of the above networks, see **Transportation Assessment Support Map**.<sup>1</sup>

Is the project within the service area of Metro Bike Share, or is there demonstrated demand for micro-mobility services?

If the project dedications and improvements asking to be waived are necessary to meet the City's mobility needs, the project may be found to conflict with a plan that is adopted to protect the environment.

## B. Mobility Plan 2035 PROW Policy Alignment with Project-Initiated Changes

### B.1 Project-Initiated Changes to the PROW Dimensions

These questions address potential conflict with:

**Mobility Plan 2035 Policy 2.1** – *Adaptive Reuse of Streets. Design, plan, and operate streets to serve multiple purposes and provide flexibility in design to adapt to future demands.*

**Mobility Plan 2035 Policy 2.3** – *Pedestrian Infrastructure. Recognize walking as a component of every trip, and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.*

**Mobility Plan 2035 Policy 3.2** – *People with Disabilities. Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.*

**Mobility Plan 2035 Policy 2.10** – *Loading Areas. Facilitate the provision of adequate on and off-site street loading areas.*

### **Mobility Plan 2035 Street Designations and Standard Roadway Dimensions**

B.1 Does the project propose, above and beyond any PROW changes needed to comply with Section 12.37 of the LAMC as discussed in Section II.A, physically modify the curb placement or turning radius and/or physically alter the sidewalk and parkways space that changes how people access a property?

Examples of developer-initiated physical changes to the public right-of-way include:

- widening the roadway,
- narrowing the sidewalk,
- adding space for vehicle turn outs or loading areas,
- removing bicycle lanes, bike share stations, or bicycle parking

<sup>1</sup> LADOT Transportation Assessment Support Map <https://arcg.is/fubbd>



Plan, Policy, and Program Consistency Worksheet

- modifying existing bus stop, transit shelter, or other street furniture
- paving, narrowing, shifting or removing an existing parkway or tree well

Yes  No

**B.2 Driveway Access**

These questions address potential conflict with:

***Mobility Plan 2035 Policy 2.10 – Loading Areas.*** Facilitate the provision of adequate on and off-site street loading areas.

X

***Mobility Plan 2035 Program PL.1. Driveway Access.*** Require driveway access to buildings from non-arterial streets or alleys (where feasible) in order to minimize interference with pedestrian access and vehicular movement.

***Citywide Design Guidelines - Guideline 2:*** Carefully incorporate vehicular access such that it does not degrade the pedestrian experience.

Site Planning Best Practices:

- Prioritize pedestrian access first and automobile access second. Orient parking and driveways toward the rear or side of buildings and away from the public right-of-way. On corner lots, parking should be oriented as far from the corner as possible.
- Minimize both the number of driveway entrances and overall driveway widths.
- Do not locate drop-off/pick-up areas between principal building entrances and the adjoining sidewalks.
- Orient vehicular access as far from street intersections as possible.
- Place drive-thru elements away from intersections and avoid placing them so that they create a barrier between the sidewalk and building entrance(s).
- Ensure that loading areas do not interfere with on-site pedestrian and vehicular circulation by separating loading areas and larger commercial vehicles from areas that are used for public parking and public entrances.

B.2 Does the project add new driveways along a street designated as an Avenue or a Boulevard that conflict with LADOT’s Driveway Design Guidelines (See Sec. 321 in the Manual of Policies and Procedures) by any of the following:

- locating new driveways for residential properties on an Avenue or Boulevard, and access is otherwise possible using an alley or a collector/local street, or
- locating new driveways for industrial or commercial properties on an Avenue or Boulevard and access is possible along a collector/local street, or
- the total number of new driveways exceeds 1 driveway per every 200 feet<sup>2</sup> along on the Avenue or Boulevard frontage, or
- locating new driveways on an Avenue or Boulevard within 150 feet from the intersecting street, or
- locating new driveways on a collector or local street within 75 feet from the intersecting street, or

<sup>2</sup> for a project frontage that exceeds 400 feet along an Avenue or Boulevard, the incremental additional driveway above 2 is more than 1 driveway for every 400 additional feet.



## Plan, Policy, and Program Consistency Worksheet

- locating new driveways near mid-block crosswalks, requiring relocation of the mid-block crosswalk

Yes  No

If the answer to **B.1 and B.2 are both NO**, then the project would not conflict with a plan or policies that govern the PROW as a result of the project-initiated changes to the PROW.

### Impact Analysis

If the answer to either **B.1 or B.2 are YES**, City plans and policies should be reviewed in light of the proposed physical changes to determine if the City would be obstructed from carrying out the plans and policies. The analysis should pay special consideration to substantial changes to the Public Right of Way that may either degrade existing facilities for people walking and bicycling (e.g., removing a bicycle lane), or preclude the City from completing complete street infrastructure as identified in the Mobility Plan 2035, especially if the physical changes are along streets that are on the High Injury Network (HIN). The analysis should also consider if the project is in a Transit Oriented Community (TOC) area, and would degrade or inhibit trips made by biking, walking and/ or transit ridership. The streets that need special consideration are those that are included on the following networks identified in the Mobility Plan 2035, or the HIN:

- Transit Enhanced Network
- Bicycle Enhanced Network
- Bicycle Lane Network
- Pedestrian Enhanced District
- Neighborhood Enhanced Network
- High Injury Network

To see the location of the above networks, see **Transportation Assessment Support Map**.<sup>3</sup>

Once the project is reviewed relevant to plans and policies, and existing facilities that may be impacted by the project, the analysis will need to answer the following two questions in concluding if there is an impact due to plan inconsistency.

B.2.1 Would the physical changes in the public right of way or new driveways that conflict with LADOT's Driveway Design Guidelines degrade the experience of vulnerable roadway users such as modify, remove, or otherwise negatively impact existing bicycle, transit, and/or pedestrian infrastructure?

Yes  No  N/A

B.2.2 Would the physical modifications or new driveways that conflict with LADOT's Driveway Design Guidelines preclude the City from advancing the safety of vulnerable roadway users?

Yes  No  N/A

If either of the answers to either **B.2.1 or B.2.2 are YES**, the project may conflict with the Mobility Plan 2035, and therefore conflict with a plan that is adopted to protect the

<sup>3</sup> LADOT Transportation Assessment Support Map <https://arcg.is/fubbD>



Plan, Policy, and Program Consistency Worksheet

environment. If either of the answers to both **B.2.1. or B.2.2. are NO**, then the project would not be shown to conflict with plans or policies that govern the Public Right-of-Way.

**C. Network Access**

**C. 1 Alley, Street and Stairway Access**

These questions address potential conflict with:

***Mobility Plan Policy 3.9 Increased Network Access: Discourage the vacation of public rights-of-way.***

C.1.1 Does the project propose to vacate or otherwise restrict public access to a street, alley, or public stairway?

Yes  No

C.1.2 If the answer to C.1.1 is Yes, will the project provide or maintain public access to people walking and biking on the street, alley or stairway?

Yes  No  N/A

**C.2 New Cul-de-sacs**

These questions address potential conflict with:

***Mobility Plan 2035 Policy 3.10 Cul-de-sacs: Discourage the use of cul-de-sacs that do not provide access for active transportation options.***

C.2.1 Does the project create a cul-de-sac or is the project located adjacent to an existing cul-de-sac?

Yes  No

C.2.2 If yes, will the cul-de-sac maintain convenient and direct public access to people walking and biking to the adjoining street network?

Yes  No  N/A

If the answers to either C.1.2 or C.2.2 are YES, then the project would not conflict with a plan or policies that ensures access for all modes of travel. If the answer to either **C.1.2 or C.2.2 are NO**, the project may conflict with a plan or policies that governs multimodal access to a property. Further analysis must assess to the degree that pedestrians and bicyclists have sufficient public access to the transportation network.

**D. Parking Supply and Transportation Demand Management**

These questions address potential conflict with:

***Mobility Plan 2035 Policy 3.8 – Bicycle Parking, Provide bicyclists with convenient, secure and well maintained bicycle parking facilities.***

***Mobility Plan 2035 Policy 4.8 – Transportation Demand Management Strategies. Encourage greater utilization of Transportation Demand Management Strategies to reduce dependence on single-occupancy vehicles.***





## Plan, Policy, and Program Consistency Worksheet

**Mobility Plan 2035 Policy 4.13 – Parking and Land Use Management: Balance on-street and off-street parking supply with other transportation and land use objectives.**

D.1 Would the project propose a supply of onsite parking that exceeds the baseline amount<sup>4</sup> as required in the Los Angeles Municipal Code or a Specific plan, whichever requirement prevails?

Yes  No

D.2 If the answer to D.1. is YES, would the project propose to actively manage the demand of parking by independently pricing the supply to all users (e.g. parking cash-out), or for residential properties, unbundle the supply from the lease or sale of residential units?

Yes  No  N/A

If the answer to **D.2. is NO** the project may conflict with parking management policies. Further analysis is needed to demonstrate how the supply of parking above city requirements will not result in additional (induced) drive-alone trips as compared to an alternative that provided no more parking than the baseline required by the LAMC or Specific Plan. If there is potential for the supply of parking to result in induced demand for drive-alone trips, the project should further explore transportation demand management (TDM) measures to further off-set the induced demands of driving and vehicle miles travelled (VMT) that may result from higher amounts of on-site parking. The TDM measures should specifically focus on strategies that encourage dynamic and context-sensitive pricing solutions and ensure the parking is efficiently allocated, such as providing real time information. Research has demonstrated that charging a user cost for parking or providing a ‘cash-out’ option in return for not using it is the most effective strategy to reduce the instances of drive-alone trips and increase non-auto mode share to further reduce VMT. To ensure the parking is efficiently managed and reduce the need to build parking for future uses, further strategies should include sharing parking with other properties and/or the general public.

D.3. Would the project provide the minimum on and off-site bicycle parking spaces as required by Section 12.21 A.16 of the LAMC?

Yes  No

D.4. Does the Project include more than 25,000 square feet of gross floor area construction of new non-residential gross floor?

Yes  No

D.5 If the answer to D.4. is YES, does the project comply with the City’s TDM Ordinance in Section 12.26 J of the LAMC?

Yes  No  N/A

If the answer to **D.3. or D.5. is NO** the project conflicts with LAMC code requirements of bicycle parking and TDM measures. If the project includes uses that require bicycle parking (Section 12.21 A.16) or TDM (Section 12.26 J), and the project does not comply with those Sections of the LAMC, further analysis is required to ensure that the project supports the intent of the two LAMC sections. To meet the intent of

<sup>4</sup> The baseline parking is defined here as the default parking requirements in section 12.21 A.4 of the Los Angeles Municipal Code or any applicable Specific Plan, whichever prevails, for each applicable use not taking into consideration other parking incentives to reduce the amount of required parking.



Plan, Policy, and Program Consistency Worksheet

bicycle parking requirements, the analysis should identify how the project commits to providing safe access to those traveling by bicycle and accommodates storing their bicycle in locations that demonstrates priority over vehicle access.

Similarly, to meet the intent of the TDM requirements of Section 12.26 J of the LAMC, the analysis should identify how the project commits to providing effective strategies in either physical facilities or programs that encourage non-drive alone trips to and from the project site and changes in work schedule that move trips out of the peak period or eliminate them altogether (as in the case in telecommuting or compressed work weeks).

**E. Consistency with Regional Plans**

This section addresses potential inconsistencies with greenhouse gas (GHG) reduction targets forecasted in the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) / Sustainable Communities Strategy (SCS).

E.1 Does the Project or Plan apply one the City’s efficiency-based impact thresholds (i.e. VMT per capita, VMT per employee, or VMT per service population) as discussed in **Section 2.2.3** of the TAG?  
 Yes  No

E.2 If the Answer to **E.1 is YES**, does the Project or Plan result in a significant VMT impact?  
 Yes  No  N/A

E.3 If the Answer to **E.1 is NO**, does the Project result in a net increase in VMT?  
 Yes  No  N/A

If the Answer to **E.2 or E.3 is NO**, then the Project or Plan is shown to align with the long-term VMT and GHG reduction goals of SCAG’s RTP/SCS.

E.4 If the Answer to **E.2 or E.3 is YES**, then further evaluation would be necessary to determine whether such a project or land use plan would be shown to be consistent with VMT and GHG reduction goals of the SCAG RTP/SCS. For the purpose of making a finding that a project is consistent with the GHG reduction targets forecasted in the SCAG RTP/SCS, the project analyst should consult **Section 2.2.4** of the Transportation Assessment Guidelines (TAG). **Section 2.2.4** provides the methodology for evaluating a land use project's cumulative impacts to VMT, and the appropriate reliance on SCAG’s most recently adopted RTP/SCS in reaching that conclusion.

The analysis methods therein can further support findings that the project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy for which the State Air Resources Board, pursuant to Section 65080(b)(2)(H) of the Government Code, has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets.



## Plan, Policy, and Program Consistency Worksheet

**References**

BOE [Street Standard Dimensions S-470-1](#)

[http://eng2.lacity.org/techdocs/stdplans/s-400/S-470-1\\_20151021\\_150849.pdf](http://eng2.lacity.org/techdocs/stdplans/s-400/S-470-1_20151021_150849.pdf)

LADCP [Citywide Design Guidelines](#).

[https://planning.lacity.org/odocument/f6608be7-d5fe-4187-bea6-20618eec5049/Citywide\\_Design\\_Guidelines.pdf](https://planning.lacity.org/odocument/f6608be7-d5fe-4187-bea6-20618eec5049/Citywide_Design_Guidelines.pdf)

LADOT Transportation Assessment Support Map <https://arcg.is/fubbd>

Mobility Plan 2035

[https://planning.lacity.org/odocument/523f2a95-9d72-41d7-aba5-1972f84c1d36/Mobility\\_Plan\\_2035.pdf](https://planning.lacity.org/odocument/523f2a95-9d72-41d7-aba5-1972f84c1d36/Mobility_Plan_2035.pdf)

SCAG. Connect SoCal, 2020-2045 RTP/SCS, <https://www.connectsocial.org/Pages/default.aspx>

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## APPENDIX C

### LADOT VMT CALCULATOR OUTPUT REPORTS

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# CITY OF LOS ANGELES VMT CALCULATOR Version 1.4



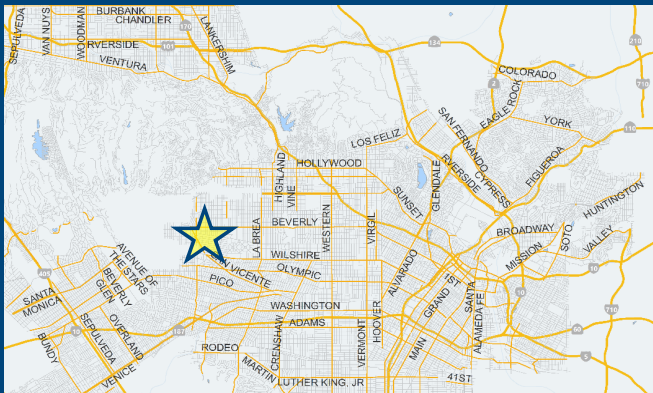
*Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?*

## Project Information

Project:

Scenario:  [WWW](#)

Address:  [Q](#)



**Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?**

Yes  No

## Existing Land Use

Land Use Type	Value	Unit
Housing   Single Family		DU

[Click here to add a single custom land use type \(will be included in the above list\)](#)

## Proposed Project Land Use

Land Use Type	Value	Unit
Retail   Quality Restaurant	6	ksf
Housing   Multi-Family	69	DU
Housing   Affordable Housing - Family	8	DU
Retail   General Retail	4	ksf
Retail   Fast-Food Restaurant	2	ksf
Retail   Quality Restaurant	6	ksf

[Click here to add a single custom land use type \(will be included in the above list\)](#)

## Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	995 Daily Vehicle Trips
0 Daily VMT	6,916 Daily VMT
<b>Tier 1 Screening Criteria</b>	
Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. <input type="checkbox"/>	
<b>Tier 2 Screening Criteria</b>	
The net increase in daily trips < 250 trips	995 Net Daily Trips
The net increase in daily VMT ≤ 0	6,916 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	12,000 ksf
<b>The proposed project is required to perform VMT analysis.</b>	



# CITY OF LOS ANGELES VMT CALCULATOR Version 1.4

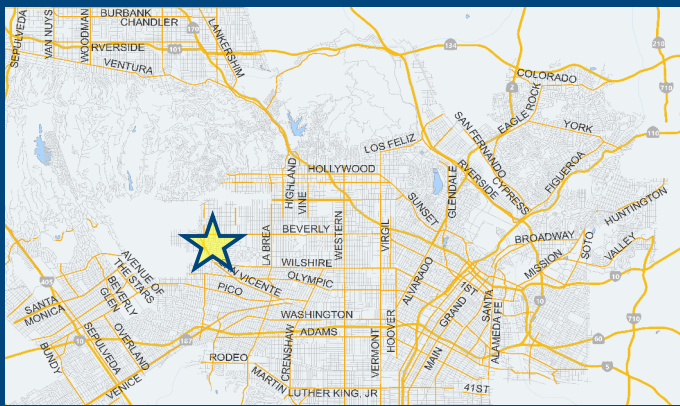


## Project Information

**Project:** 8339 W. 3rd Street Mixed-Use Project

**Scenario:** With Project

**Address:** 8339 W 3RD ST, 90048



Proposed Project Land Use Type	Value	Unit
Housing   Multi-Family	69	
Housing   Affordable Housing - Family	8	
Retail   General Retail	4	
Retail   Fast-Food Restaurant	2	
Retail   Quality Restaurant	6	

## TDM Strategies

Select each section to show individual strategies  
Use  to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	No	No
Max Work Based TDM Achieved?	No	No

**A** **Parking**

**Reduce Parking Supply**  Proposed Prj  Mitigation

223 city code parking provision for the project site

40 actual parking provision for the project site

**Unbundle Parking**  Proposed Prj  Mitigation

175 monthly parking cost (dollar) for the project site

**Parking Cash-Out**  Proposed Prj  Mitigation

50 percent of employees eligible

**Price Workplace Parking**  Proposed Prj  Mitigation

6.00 daily parking charge (dollar)

50 percent of employees subject to priced parking

**Residential Area Parking Permits**  Proposed Prj  Mitigation

200 cost (dollar) of annual permit

- B** Transit
- C** Education & Encouragement
- D** Commute Trip Reductions
- E** Shared Mobility
- F** Bicycle Infrastructure
- G** Neighborhood Enhancement

## Analysis Results

Proposed Project	With Mitigation
<b>865</b> Daily Vehicle Trips	<b>865</b> Daily Vehicle Trips
<b>6,014</b> Daily VMT	<b>6,014</b> Daily VMT
<b>4.1</b> Household VMT per Capita	<b>4.1</b> Household VMT per Capita
<b>N/A</b> Work VMT per Employee	<b>N/A</b> Work VMT per Employee
<b>Significant VMT Impact?</b>	
<b>Household: No</b> Threshold = 6.0 15% Below APC	<b>Household: No</b> Threshold = 6.0 15% Below APC
<b>Work: N/A</b> Threshold = 7.6 15% Below APC	<b>Work: N/A</b> Threshold = 7.6 15% Below APC



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: June 21, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.4

Project Information			
	Land Use Type	Value	Units
<b>Housing</b>	<i>Single Family</i>	0	DU
	<b>Multi Family</b>	69	DU
	<i>Townhouse</i>	0	DU
	<i>Hotel</i>	0	Rooms
	<i>Motel</i>	0	Rooms
<b>Affordable Housing</b>	<b>Family</b>	8	DU
	<i>Senior</i>	0	DU
	<i>Special Needs</i>	0	DU
	<i>Permanent Supportive</i>	0	DU
<b>Retail</b>	<b>General Retail</b>	4.000	ksf
	<i>Furniture Store</i>	0.000	ksf
	<i>Pharmacy/Drugstore</i>	0.000	ksf
	<i>Supermarket</i>	0.000	ksf
	<i>Bank</i>	0.000	ksf
	<i>Health Club</i>	0.000	ksf
	<i>High-Turnover Sit-Down</i>	0.000	ksf
	<i>Restaurant</i>	0.000	ksf
	<b>Fast-Food Restaurant</b>	2.000	ksf
	<b>Quality Restaurant</b>	6.000	ksf
	<i>Auto Repair</i>	0.000	ksf
	<i>Home Improvement</i>	0.000	ksf
	<i>Free-Standing Discount</i>	0.000	ksf
	<i>Movie Theater</i>	0	Seats
<i>Office</i>	<i>General Office</i>	0.000	ksf
	<i>Medical Office</i>	0.000	ksf
<i>Industrial</i>	<i>Light Industrial</i>	0.000	ksf
	<i>Manufacturing</i>	0.000	ksf
	<i>Warehousing/Self-Storage</i>	0.000	ksf
<i>School</i>	<i>University</i>	0	Students
	<i>High School</i>	0	Students
	<i>Middle School</i>	0	Students
	<i>Elementary</i>	0	Students
	<i>Private School (K-12)</i>	0	Students
<i>Other</i>		0	Trips

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: June 21, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.4

<b>Analysis Results</b>			
Total Employees: 45			
Total Population: 181			
<b>Proposed Project</b>		<b>With Mitigation</b>	
865	Daily Vehicle Trips	865	Daily Vehicle Trips
6,014	Daily VMT	6,014	Daily VMT
4.1	Household VMT per Capita	4.1	Household VMT per Capita
N/A	Work VMT per Employee	N/A	Work VMT per Employee
<b>Significant VMT Impact?</b>			
<b>APC: Central</b>			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
<b>Proposed Project</b>		<b>With Mitigation</b>	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	N/A	Work > 7.6	N/A



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: June 21, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.4

TDM Strategy Inputs				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Parking</b>	Reduce parking supply	City code parking provision (spaces)	223	223
		Actual parking provision (spaces)	40	40
	Unbundle parking	Monthly cost for parking (\$)	\$0	\$0
	Parking cash-out	Employees eligible (%)	0%	0%
	Price workplace parking	Daily parking charge (\$)	\$0.00	\$0.00
		Employees subject to priced parking (%)	0%	0%
	Residential area parking permits	Cost of annual permit (\$)	\$0	\$0
(cont. on following page)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: June 21, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.4

TDM Strategy Inputs, Cont.				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Transit</b>	<i>Reduce transit headways</i>	<i>Reduction in headways (increase in frequency) (%)</i>	0%	
		<i>Existing transit mode share (as a percent of total daily trips) (%)</i>	0%	
		<i>Lines within project site improved (&lt;50%, &gt;=50%)</i>	0	
	<i>Implement neighborhood shuttle</i>	<i>Degree of implementation (low, medium, high)</i>	0	0
		<i>Employees and residents eligible (%)</i>	0%	0%
	<i>Transit subsidies</i>	<i>Employees and residents eligible (%)</i>	0%	0%
<i>Amount of transit subsidy per passenger (daily equivalent) (\$)</i>		\$0.00	\$0.00	
<b>Education &amp; Encouragement</b>	<i>Voluntary travel behavior change program</i>	<i>Employees and residents participating (%)</i>	0%	
	<i>Promotions and marketing</i>	<i>Employees and residents participating (%)</i>	0%	
(cont. on following page)				

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: June 21, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.4

TDM Strategy Inputs, Cont.				
Strategy Type	Description	Proposed Project	Mitigations	
<b>Commute Trip Reductions</b>	<i>Required commute trip reduction program</i>	<i>Employees participating (%)</i>	0%	0%
	<i>Alternative Work Schedules and Telecommute</i>	<i>Employees participating (%)</i>	0%	0%
		<i>Type of program</i>	0	0
		<i>Degree of implementation (low, medium, high)</i>	0	0
	<i>Employer sponsored vanpool or shuttle</i>	<i>Employees eligible (%)</i>	0%	0%
		<i>Employer size (small, medium, large)</i>	0	0
	<i>Ride-share program</i>	<i>Employees eligible (%)</i>	0%	0%
<b>Shared Mobility</b>	<i>Car share</i>	<i>Car share project setting (Urban, Suburban, All Other)</i>	0	0
	<i>Bike share</i>	<i>Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)</i>	0	0
	<i>School carpool program</i>	<i>Level of implementation (Low, Medium, High)</i>	0	0
(cont. on following page)				



TDM Strategy Inputs, Cont.				
Strategy Type		Description	Proposed Project	Mitigations
<b>Bicycle Infrastructure</b>	<i>Implement/Improve on-street bicycle facility</i>	<i>Provide bicycle facility along site (Yes/No)</i>	0	0
	<b>Include Bike parking per LAMC</b>	<b>Meets City Bike Parking Code (Yes/No)</b>	Yes	Yes
	<i>Include secure bike parking and showers</i>	<i>Includes indoor bike parking/lockers, showers, &amp; repair station (Yes/No)</i>	0	0
<b>Neighborhood Enhancement</b>	<i>Traffic calming improvements</i>	<i>Streets with traffic calming improvements (%)</i>	0%	0%
		<i>Intersections with traffic calming improvements (%)</i>	0%	0%
	<i>Pedestrian network improvements</i>	<i>Included (within project and connecting off-site/within project only)</i>	0	0

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: June 21, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.4

### TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		<b>Parking</b>	Reduce parking supply	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	
Unbundle parking	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Parking cash-out	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Price workplace parking	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Residential area parking permits	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
<b>Transit</b>	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Education &amp; Encouragement</b>	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Commute Trip Reductions</b>	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Shared Mobility</b>	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: June 21, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.4

### TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		<b>Bicycle Infrastructure</b>	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
<b>Neighborhood Enhancement</b>	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

### Final Combined & Maximum TDM Effect

	Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
	<b>COMBINED TOTAL</b>	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
<b>MAX. TDM EFFECT</b>	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%

$$= \text{Minimum}(X\%, 1 - [(1-A) * (1-B) \dots])$$

where X%=

<b>PLACE</b>	urban	75%
<b>TYPE</b>	compact infill	40%
<b>MAX:</b>	suburban center	20%
	suburban	15%

Note:  $(1 - [(1-A) * (1-B) \dots])$  reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B, ...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G*) for further discussion of dampening.

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 4: MXD Methodology

Date: June 21, 2023

Project Name: 8339 W. 3rd Street Mixed-Use Project

Project Scenario: With Project

Project Address: 8339 W 3RD ST, 90048



Version 1.4

### MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	69	-21.7%	54	6.2	428	335
Home Based Other Production	190	-42.6%	109	4.8	912	523
Non-Home Based Other Production	279	-6.5%	261	7.1	1,981	1,853
Home-Based Work Attraction	66	-33.3%	44	8.4	554	370
Home-Based Other Attraction	526	-37.1%	331	7.5	3,945	2,483
Non-Home Based Other Attraction	211	-7.1%	196	6.9	1,456	1,352

### MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-13.0%	47	291	-13.0%	47	291
Home Based Other Production	-13.0%	95	455	-13.0%	95	455
Non-Home Based Other Production	-13.0%	227	1,611	-13.0%	227	1,611
Home-Based Work Attraction	-13.0%	38	322	-13.0%	38	322
Home-Based Other Attraction	-13.0%	288	2,159	-13.0%	288	2,159
Non-Home Based Other Attraction	-13.0%	170	1,176	-13.0%	170	1,176

### MXD VMT Methodology Per Capita & Per Employee

Total Population: 181

Total Employees: 45

APC: Central

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
<i>Total Home Based Production VMT</i>	<b>746</b>	<b>746</b>
<i>Total Home Based Work Attraction VMT</i>	<b>322</b>	<b>322</b>
<i>Total Home Based VMT Per Capita</i>	<b>4.1</b>	<b>4.1</b>
<i>Total Work Based VMT Per Employee</i>	<b>N/A</b>	<b>N/A</b>

---

**APPENDIX D**

**TRAFFIC COUNT DATA SHEETS**

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City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd AM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 1

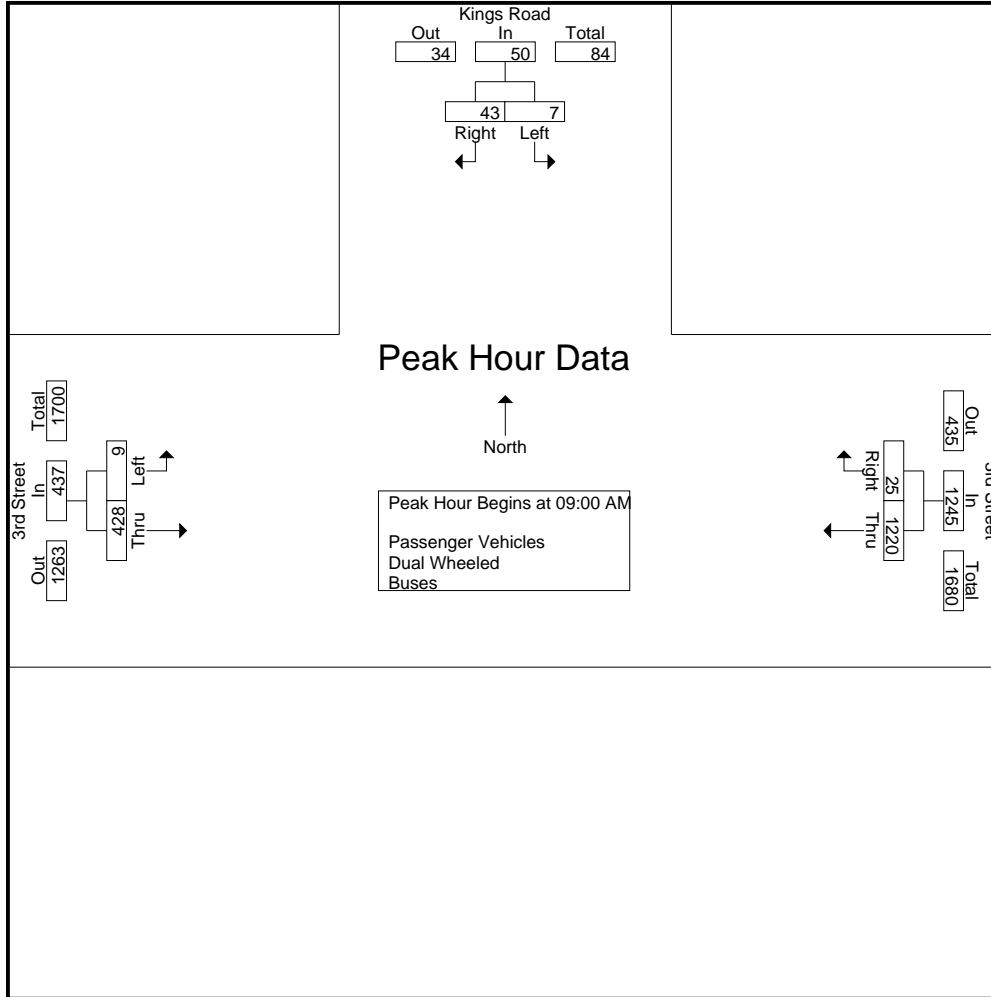
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	1	1	163	2	165	2	51	53	219
07:15 AM	0	1	1	225	2	227	3	54	57	285
07:30 AM	0	5	5	337	2	339	0	78	78	422
07:45 AM	1	8	9	310	2	312	3	81	84	405
Total	1	15	16	1035	8	1043	8	264	272	1331
08:00 AM	1	9	10	283	2	285	2	100	102	397
08:15 AM	0	9	9	292	7	299	2	89	91	399
08:30 AM	1	4	5	307	7	314	2	118	120	439
08:45 AM	1	9	10	298	5	303	4	110	114	427
Total	3	31	34	1180	21	1201	10	417	427	1662
09:00 AM	1	6	7	353	5	358	2	95	97	462
09:15 AM	3	11	14	277	4	281	1	85	86	381
09:30 AM	1	12	13	286	7	293	5	114	119	425
09:45 AM	2	14	16	304	9	313	1	134	135	464
Total	7	43	50	1220	25	1245	9	428	437	1732
Grand Total	11	89	100	3435	54	3489	27	1109	1136	4725
Apprch %	11	89		98.5	1.5		2.4	97.6		
Total %	0.2	1.9	2.1	72.7	1.1	73.8	0.6	23.5	24	
Passenger Vehicles	10	87	97	3348	51	3399	26	1049	1075	4571
% Passenger Vehicles	90.9	97.8	97	97.5	94.4	97.4	96.3	94.6	94.6	96.7
Dual Wheeled	1	2	3	55	3	58	1	25	26	87
% Dual Wheeled	9.1	2.2	3	1.6	5.6	1.7	3.7	2.3	2.3	1.8
Buses	0	0	0	32	0	32	0	35	35	67
% Buses	0	0	0	0.9	0	0.9	0	3.2	3.1	1.4

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 09:00 AM										
09:00 AM	1	6	7	<b>353</b>	5	<b>358</b>	2	95	97	462
09:15 AM	<b>3</b>	11	14	277	4	281	1	85	86	381
09:30 AM	1	12	13	286	7	293	<b>5</b>	114	119	425
09:45 AM	2	<b>14</b>	<b>16</b>	304	<b>9</b>	313	1	<b>134</b>	<b>135</b>	<b>464</b>
Total Volume	7	43	50	1220	25	1245	9	428	437	1732
% App. Total	14	86		98	2		2.1	97.9		
PHF	.583	.768	.781	.864	.694	.869	.450	.799	.809	.933

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd AM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 2



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	09:00 AM			08:15 AM			09:00 AM		
+0 mins.	1	6	7	292	7	299	2	95	97
+15 mins.	3	11	14	307	7	314	1	85	86
+30 mins.	1	12	13	298	5	303	5	114	119
+45 mins.	2	14	16	353	5	358	1	134	135
Total Volume	7	43	50	1250	24	1274	9	428	437
% App. Total	14	86		98.1	1.9		2.1	97.9	
PHF	.583	.768	.781	.885	.857	.890	.450	.799	.809

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd AM  
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 Start Date : 5/25/2023  
 Page No : 1

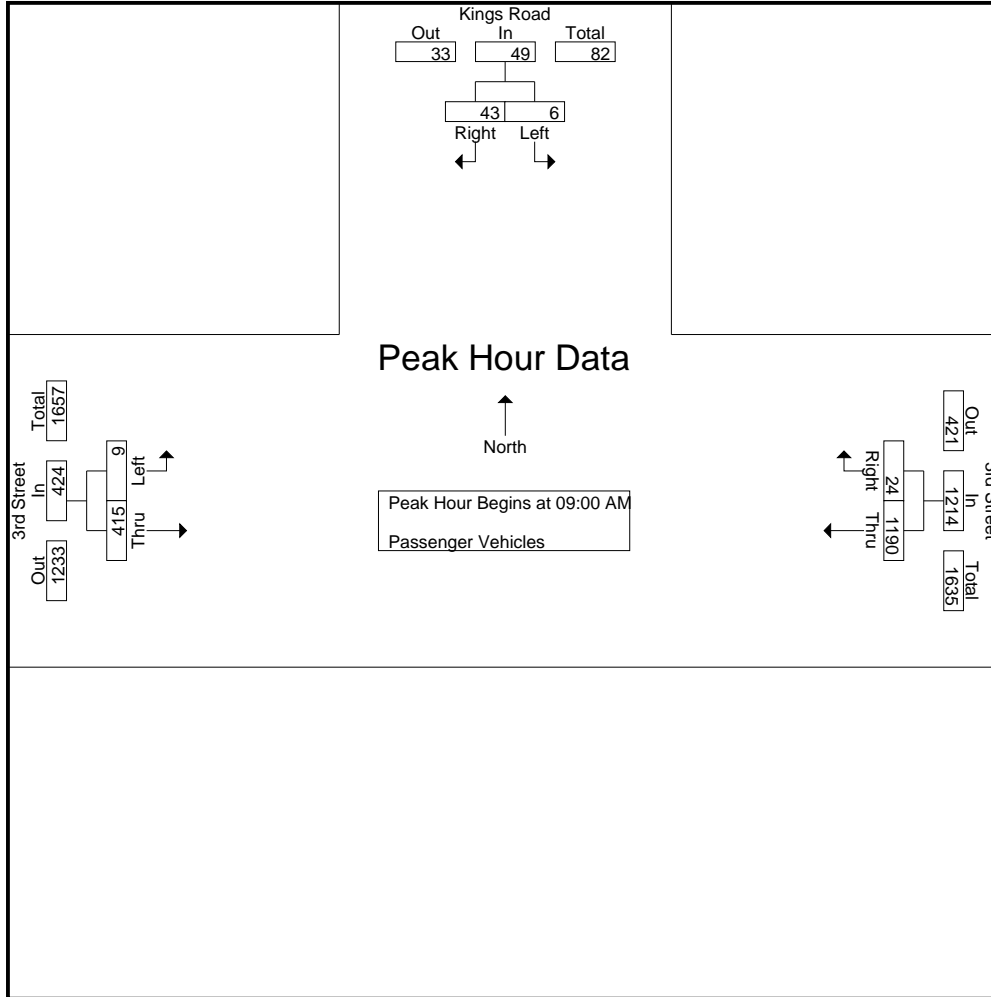
Groups Printed- Passenger Vehicles

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	1	1	158	2	160	2	43	45	206
07:15 AM	0	1	1	218	2	220	3	45	48	269
07:30 AM	0	5	5	325	1	326	0	72	72	403
07:45 AM	1	8	9	305	2	307	3	75	78	394
Total	1	15	16	1006	7	1013	8	235	243	1272
08:00 AM	1	9	10	281	2	283	2	95	97	390
08:15 AM	0	8	8	284	7	291	1	86	87	386
08:30 AM	1	4	5	300	6	306	2	113	115	426
08:45 AM	1	8	9	287	5	292	4	105	109	410
Total	3	29	32	1152	20	1172	9	399	408	1612
09:00 AM	1	6	7	347	5	352	2	92	94	453
09:15 AM	3	11	14	267	4	271	1	84	85	370
09:30 AM	1	12	13	277	7	284	5	109	114	411
09:45 AM	1	14	15	299	8	307	1	130	131	453
Total	6	43	49	1190	24	1214	9	415	424	1687
Grand Total	10	87	97	3348	51	3399	26	1049	1075	4571
Apprch %	10.3	89.7		98.5	1.5		2.4	97.6		
Total %	0.2	1.9	2.1	73.2	1.1	74.4	0.6	22.9	23.5	

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 09:00 AM to 09:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 09:00 AM										
09:00 AM	1	6	7	<b>347</b>	5	<b>352</b>	2	92	94	<b>453</b>
09:15 AM	3	11	14	267	4	271	1	84	85	370
09:30 AM	1	12	13	277	7	284	<b>5</b>	109	114	411
09:45 AM	1	<b>14</b>	<b>15</b>	299	<b>8</b>	307	1	<b>130</b>	<b>131</b>	453
Total Volume	6	43	49	1190	24	1214	9	415	424	1687
% App. Total	12.2	87.8		98	2		2.1	97.9		
PHF	.500	.768	.817	.857	.750	.862	.450	.798	.809	.931

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd AM  
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Peak Hour Analysis From 09:00 AM to 09:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	09:00 AM			09:00 AM			09:00 AM		
+0 mins.	1	6	7	<b>347</b>	5	<b>352</b>	2	92	94
+15 mins.	<b>3</b>	11	14	267	4	271	1	84	85
+30 mins.	1	12	13	277	7	284	<b>5</b>	109	114
+45 mins.	1	<b>14</b>	<b>15</b>	299	<b>8</b>	307	1	<b>130</b>	<b>131</b>
Total Volume	6	43	49	1190	24	1214	9	415	424
% App. Total	12.2	87.8		98	2		2.1	97.9	
PHF	.500	.768	.817	.857	.750	.862	.450	.798	.809

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd AM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 1

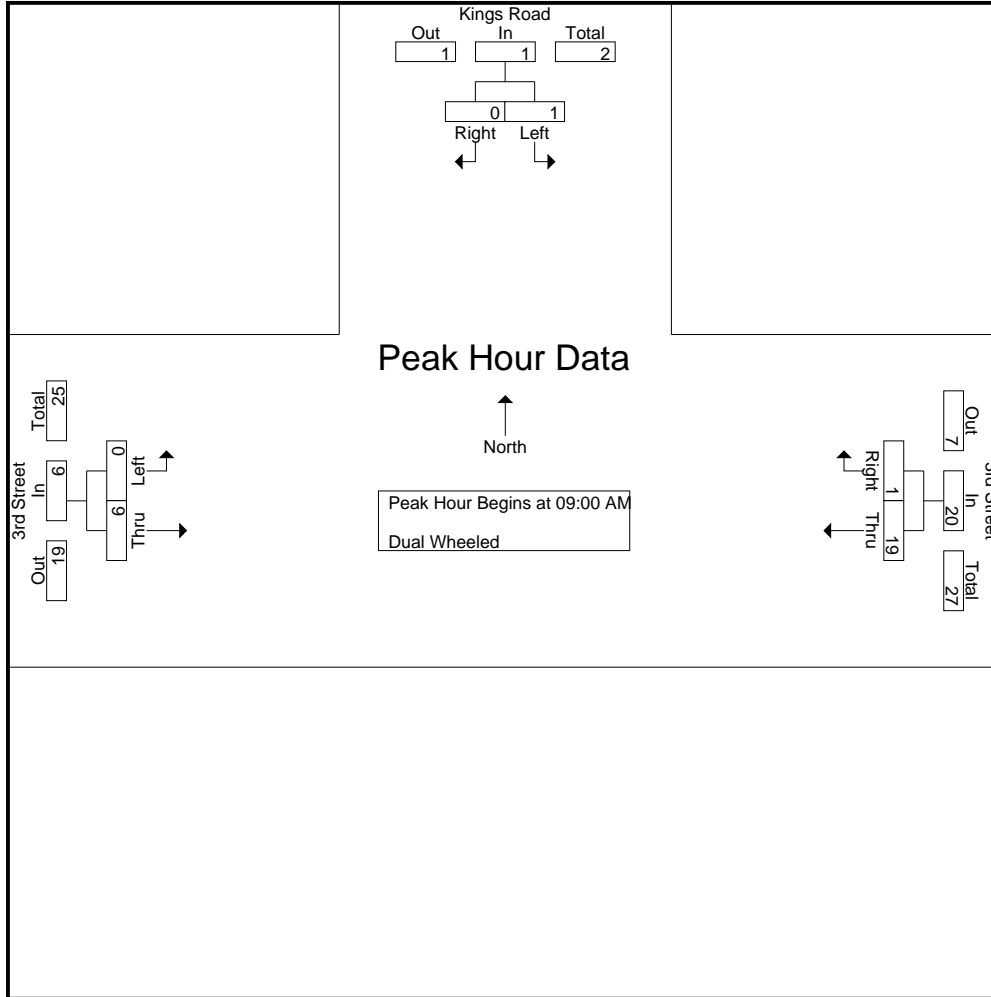
Groups Printed- Dual Wheeled

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	2	0	2	0	2	2	4
07:15 AM	0	0	0	3	0	3	0	6	6	9
07:30 AM	0	0	0	9	1	10	0	2	2	12
07:45 AM	0	0	0	2	0	2	0	3	3	5
Total	0	0	0	16	1	17	0	13	13	30
08:00 AM	0	0	0	2	0	2	0	1	1	3
08:15 AM	0	1	1	4	0	4	1	1	2	7
08:30 AM	0	0	0	6	1	7	0	2	2	9
08:45 AM	0	1	1	8	0	8	0	2	2	11
Total	0	2	2	20	1	21	1	6	7	30
09:00 AM	0	0	0	2	0	2	0	2	2	4
09:15 AM	0	0	0	7	0	7	0	0	0	7
09:30 AM	0	0	0	6	0	6	0	2	2	8
09:45 AM	1	0	1	4	1	5	0	2	2	8
Total	1	0	1	19	1	20	0	6	6	27
Grand Total	1	2	3	55	3	58	1	25	26	87
Apprch %	33.3	66.7		94.8	5.2		3.8	96.2		
Total %	1.1	2.3	3.4	63.2	3.4	66.7	1.1	28.7	29.9	

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 09:00 AM to 09:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 09:00 AM										
09:00 AM	0	0	0	2	0	2	0	2	2	4
09:15 AM	0	0	0	7	0	7	0	0	0	7
09:30 AM	0	0	0	6	0	6	0	2	2	8
09:45 AM	1	0	1	4	1	5	0	2	2	8
Total Volume	1	0	1	19	1	20	0	6	6	27
% App. Total	100	0		95	5		0	100		
PHF	.250	.000	.250	.679	.250	.714	.000	.750	.750	.844

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd AM  
 Site Code : 04123528  
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Peak Hour Analysis From 09:00 AM to 09:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	09:00 AM			09:00 AM			09:00 AM		
+0 mins.	0	0	0	2	0	2	0	2	2
+15 mins.	0	0	0	7	0	7	0	0	0
+30 mins.	0	0	0	6	0	6	0	2	2
+45 mins.	1	0	1	4	1	5	0	2	2
Total Volume	1	0	1	19	1	20	0	6	6
% App. Total	100	0		95	5		0	100	
PHF	.250	.000	.250	.679	.250	.714	.000	.750	.750

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd AM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
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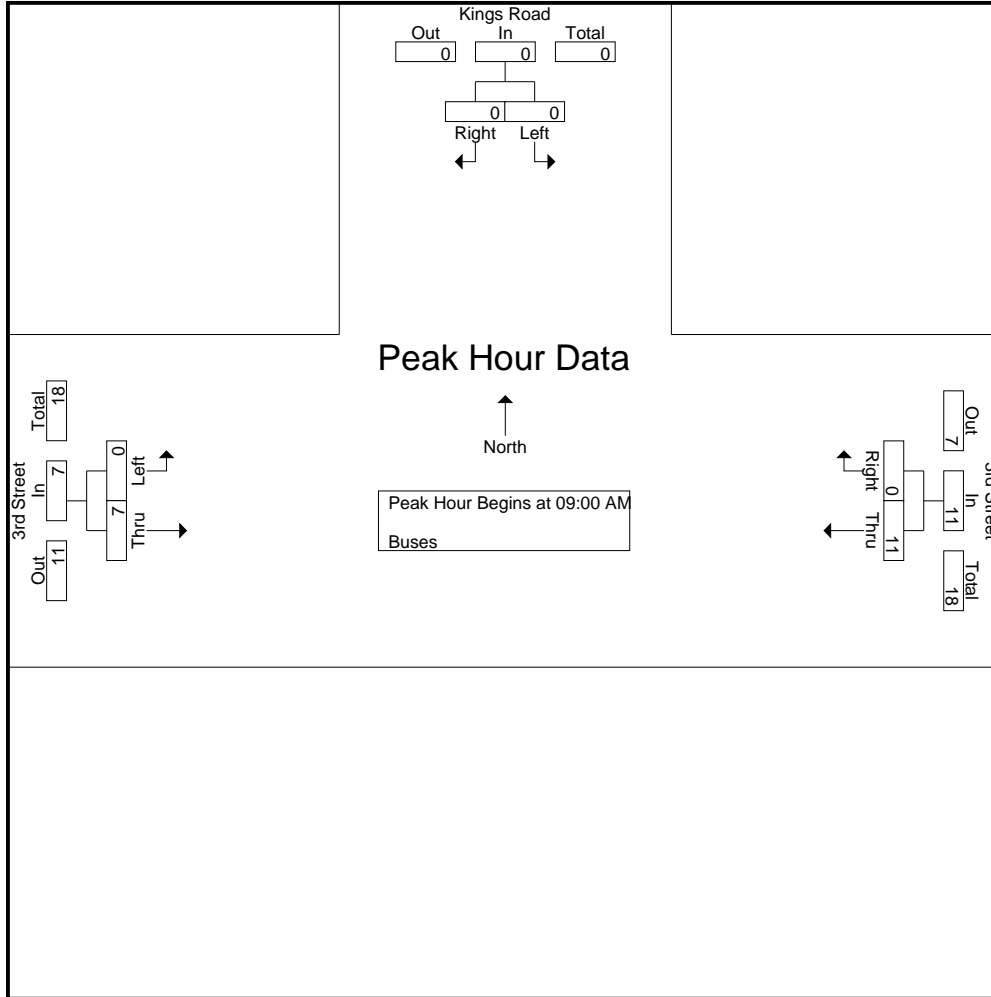
Groups Printed- Buses

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	3	0	3	0	6	6	9
07:15 AM	0	0	0	4	0	4	0	3	3	7
07:30 AM	0	0	0	3	0	3	0	4	4	7
07:45 AM	0	0	0	3	0	3	0	3	3	6
Total	0	0	0	13	0	13	0	16	16	29
08:00 AM	0	0	0	0	0	0	0	4	4	4
08:15 AM	0	0	0	4	0	4	0	2	2	6
08:30 AM	0	0	0	1	0	1	0	3	3	4
08:45 AM	0	0	0	3	0	3	0	3	3	6
Total	0	0	0	8	0	8	0	12	12	20
09:00 AM	0	0	0	4	0	4	0	1	1	5
09:15 AM	0	0	0	3	0	3	0	1	1	4
09:30 AM	0	0	0	3	0	3	0	3	3	6
09:45 AM	0	0	0	1	0	1	0	2	2	3
Total	0	0	0	11	0	11	0	7	7	18
Grand Total	0	0	0	32	0	32	0	35	35	67
Apprch %	0	0	0	100	0	100	0	100	100	
Total %	0	0	0	47.8	0	47.8	0	52.2	52.2	

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 09:00 AM to 09:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 09:00 AM										
09:00 AM	0	0	0	4	0	4	0	1	1	5
09:15 AM	0	0	0	3	0	3	0	1	1	4
09:30 AM	0	0	0	3	0	3	0	3	3	6
09:45 AM	0	0	0	1	0	1	0	2	2	3
Total Volume	0	0	0	11	0	11	0	7	7	18
% App. Total	0	0	0	100	0	100	0	100	100	
PHF	.000	.000	.000	.688	.000	.688	.000	.583	.583	.750

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd AM  
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Peak Hour Analysis From 09:00 AM to 09:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	09:00 AM			09:00 AM			09:00 AM		
+0 mins.	0	0	0	4	0	4	0	1	1
+15 mins.	0	0	0	3	0	3	0	1	1
+30 mins.	0	0	0	3	0	3	0	3	3
+45 mins.	0	0	0	1	0	1	0	2	2
Total Volume	0	0	0	11	0	11	0	7	7
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.688	.000	.688	.000	.583	.583



City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
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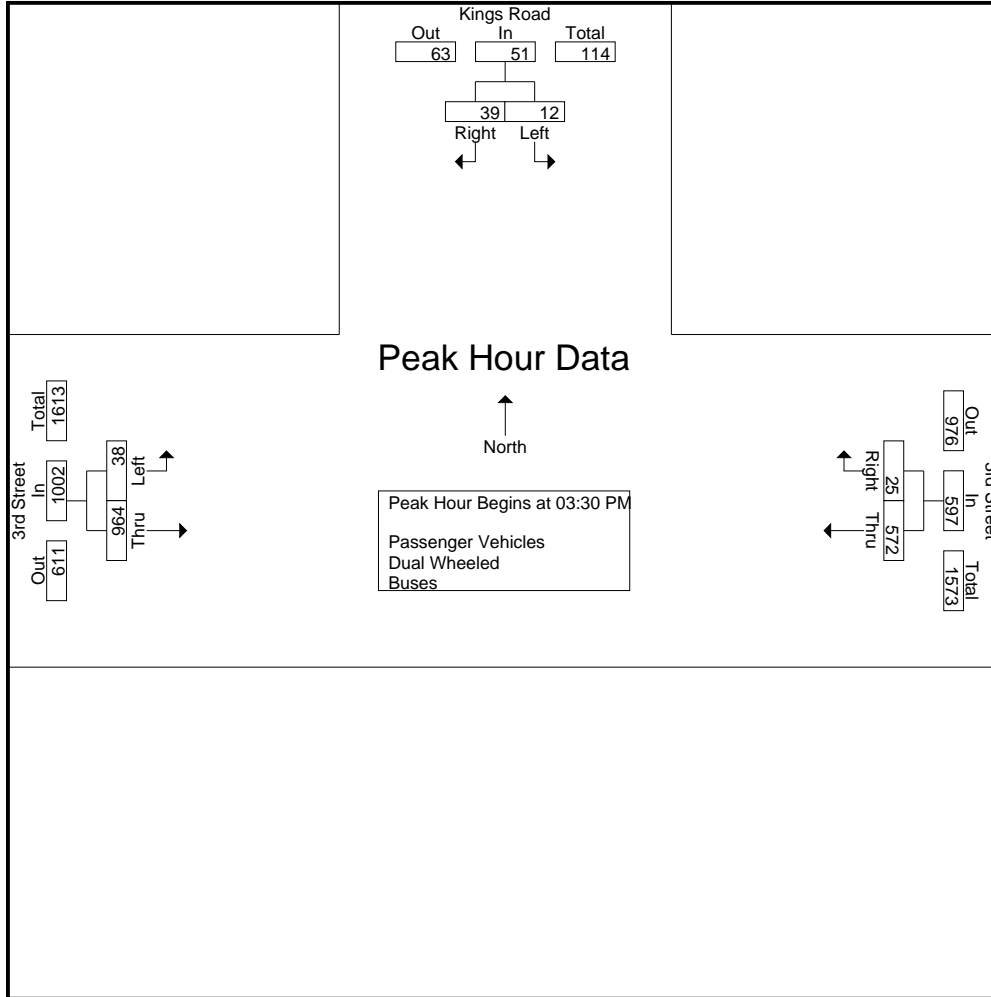
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:00 PM	4	10	14	147	6	153	9	208	217	384
03:15 PM	3	8	11	135	2	137	10	245	255	403
03:30 PM	0	15	15	146	6	152	9	260	269	436
03:45 PM	4	13	17	133	8	141	11	238	249	407
Total	11	46	57	561	22	583	39	951	990	1630
04:00 PM	2	7	9	146	6	152	8	202	210	371
04:15 PM	6	4	10	147	5	152	10	264	274	436
04:30 PM	3	6	9	148	10	158	12	227	239	406
04:45 PM	2	5	7	132	3	135	7	241	248	390
Total	13	22	35	573	24	597	37	934	971	1603
05:00 PM	4	5	9	138	5	143	14	241	255	407
05:15 PM	2	4	6	170	6	176	11	232	243	425
05:30 PM	5	7	12	147	3	150	12	218	230	392
05:45 PM	4	6	10	147	7	154	16	226	242	406
Total	15	22	37	602	21	623	53	917	970	1630
Grand Total	39	90	129	1736	67	1803	129	2802	2931	4863
Apprch %	30.2	69.8		96.3	3.7		4.4	95.6		
Total %	0.8	1.9	2.7	35.7	1.4	37.1	2.7	57.6	60.3	
Passenger Vehicles	39	88	127	1695	65	1760	128	2754	2882	4769
% Passenger Vehicles	100	97.8	98.4	97.6	97	97.6	99.2	98.3	98.3	98.1
Dual Wheeled	0	2	2	7	2	9	1	10	11	22
% Dual Wheeled	0	2.2	1.6	0.4	3	0.5	0.8	0.4	0.4	0.5
Buses	0	0	0	34	0	34	0	38	38	72
% Buses	0	0	0	2	0	1.9	0	1.4	1.3	1.5

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	0	15	15	146	6	152	9	260	269	436
03:45 PM	4	13	17	133	8	141	11	238	249	407
04:00 PM	2	7	9	146	6	152	8	202	210	371
04:15 PM	6	4	10	147	5	152	10	264	274	436
Total Volume	12	39	51	572	25	597	38	964	1002	1650
% App. Total	23.5	76.5		95.8	4.2		3.8	96.2		
PHF	.500	.650	.750	.973	.781	.982	.864	.913	.914	.946

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
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Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	03:00 PM			05:00 PM			04:15 PM		
+0 mins.	<b>4</b>	10	14	138	5	143	10	<b>264</b>	<b>274</b>
+15 mins.	3	8	11	<b>170</b>	6	<b>176</b>	12	227	239
+30 mins.	0	<b>15</b>	15	147	3	150	7	241	248
+45 mins.	4	13	<b>17</b>	147	<b>7</b>	154	<b>14</b>	241	255
Total Volume	11	46	57	602	21	623	43	973	1016
% App. Total	19.3	80.7		96.6	3.4		4.2	95.8	
PHF	.688	.767	.838	.885	.750	.885	.768	.921	.927

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd PM  
 Site Code : 04123528  
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Groups Printed- Passenger Vehicles

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:00 PM	4	10	14	144	6	150	9	200	209	373
03:15 PM	3	8	11	131	2	133	10	241	251	395
03:30 PM	0	14	14	141	6	147	9	254	263	424
03:45 PM	4	13	17	130	7	137	11	235	246	400
Total	11	45	56	546	21	567	39	930	969	1592
04:00 PM	2	7	9	146	6	152	8	198	206	367
04:15 PM	6	4	10	143	5	148	10	259	269	427
04:30 PM	3	5	8	143	9	152	12	223	235	395
04:45 PM	2	5	7	127	3	130	7	239	246	383
Total	13	21	34	559	23	582	37	919	956	1572
05:00 PM	4	5	9	136	5	141	13	239	252	402
05:15 PM	2	4	6	168	6	174	11	228	239	419
05:30 PM	5	7	12	142	3	145	12	217	229	386
05:45 PM	4	6	10	144	7	151	16	221	237	398
Total	15	22	37	590	21	611	52	905	957	1605
Grand Total	39	88	127	1695	65	1760	128	2754	2882	4769
Apprch %	30.7	69.3		96.3	3.7		4.4	95.6		
Total %	0.8	1.8	2.7	35.5	1.4	36.9	2.7	57.7	60.4	

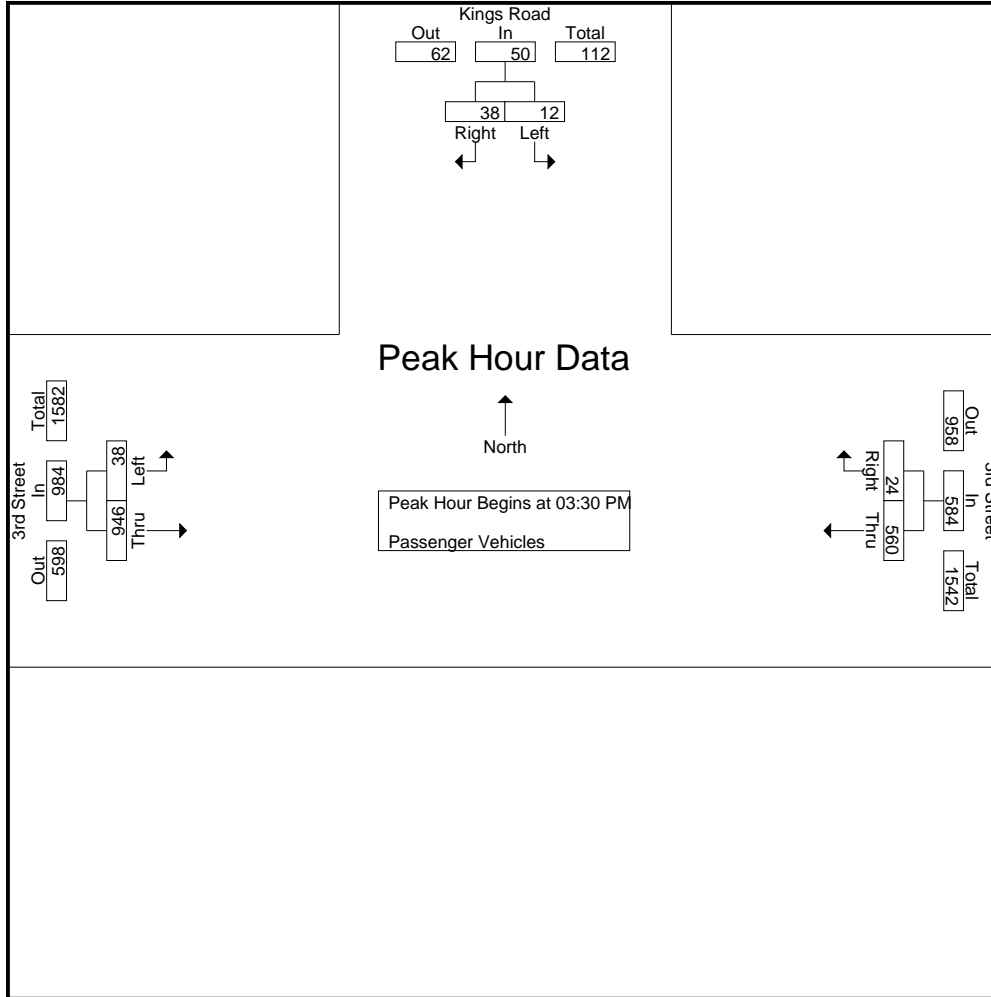
Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:30 PM	0	14	14	141	6	147	9	254	263	424
03:45 PM	4	13	17	130	7	137	11	235	246	400
04:00 PM	2	7	9	146	6	152	8	198	206	367
04:15 PM	6	4	10	143	5	148	10	259	269	427
Total Volume	12	38	50	560	24	584	38	946	984	1618
% App. Total	24	76		95.9	4.1		3.9	96.1		
PHF	.500	.679	.735	.959	.857	.961	.864	.913	.914	.947

Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 03:30 PM

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 2



Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	03:30 PM			03:30 PM			03:30 PM		
+0 mins.	0	<b>14</b>	14	141	6	147	9	254	263
+15 mins.	4	13	<b>17</b>	130	<b>7</b>	137	<b>11</b>	235	246
+30 mins.	2	7	9	<b>146</b>	6	<b>152</b>	8	198	206
+45 mins.	<b>6</b>	4	10	143	5	148	10	<b>259</b>	<b>269</b>
Total Volume	12	38	50	560	24	584	38	946	984
% App. Total	24	76		95.9	4.1		3.9	96.1	
PHF	.500	.679	.735	.959	.857	.961	.864	.913	.914

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd PM  
 Site Code : 04123528  
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Groups Printed- Dual Wheeled

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:00 PM	0	0	0	1	0	1	0	4	4	5
03:15 PM	0	0	0	0	0	0	0	2	2	2
03:30 PM	0	1	1	2	0	2	0	1	1	4
03:45 PM	0	0	0	0	1	1	0	1	1	2
Total	0	1	1	3	1	4	0	8	8	13
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	1	1	1	1	2	0	0	0	3
04:45 PM	0	0	0	1	0	1	0	0	0	1
Total	0	1	1	2	1	3	0	1	1	5
05:00 PM	0	0	0	0	0	0	1	1	2	2
05:15 PM	0	0	0	1	0	1	0	0	0	1
05:30 PM	0	0	0	1	0	1	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	1	1	2	4
Grand Total	0	2	2	7	2	9	1	10	11	22
Apprch %	0	100		77.8	22.2		9.1	90.9		
Total %	0	9.1	9.1	31.8	9.1	40.9	4.5	45.5	50	

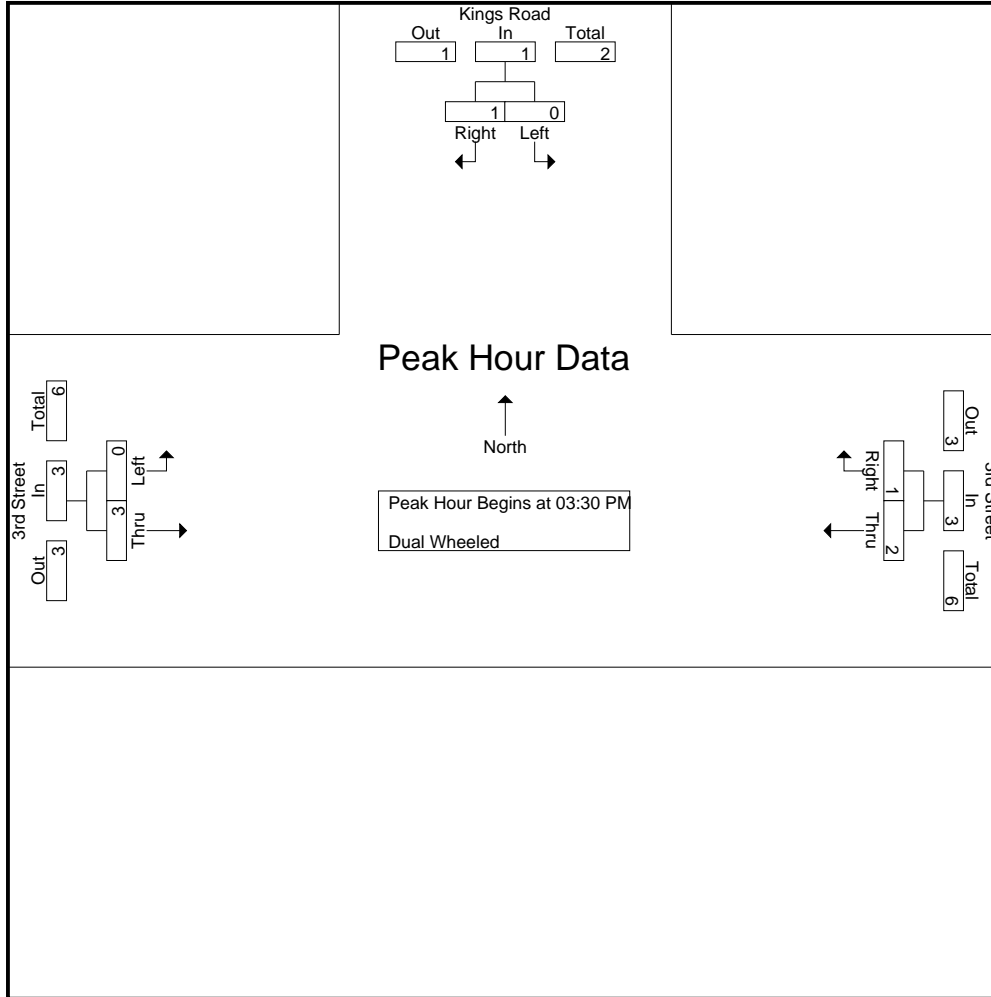
Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:30 PM	0	1	1	2	0	2	0	1	1	4
03:45 PM	0	0	0	0	1	1	0	1	1	2
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	1	1	2	1	3	0	3	3	7
% App. Total	0	100		66.7	33.3		0	100		
PHF	.000	.250	.250	.250	.250	.375	.000	.750	.750	.438

Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 03:30 PM

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
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Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	03:30 PM			03:30 PM			03:30 PM		
+0 mins.	0	1	1	2	0	2	0	1	1
+15 mins.	0	0	0	0	1	1	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	1	1	2	1	3	0	3	3
% App. Total	0	100		66.7	33.3		0	100	
PHF	.000	.250	.250	.250	.250	.375	.000	.750	.750

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 1

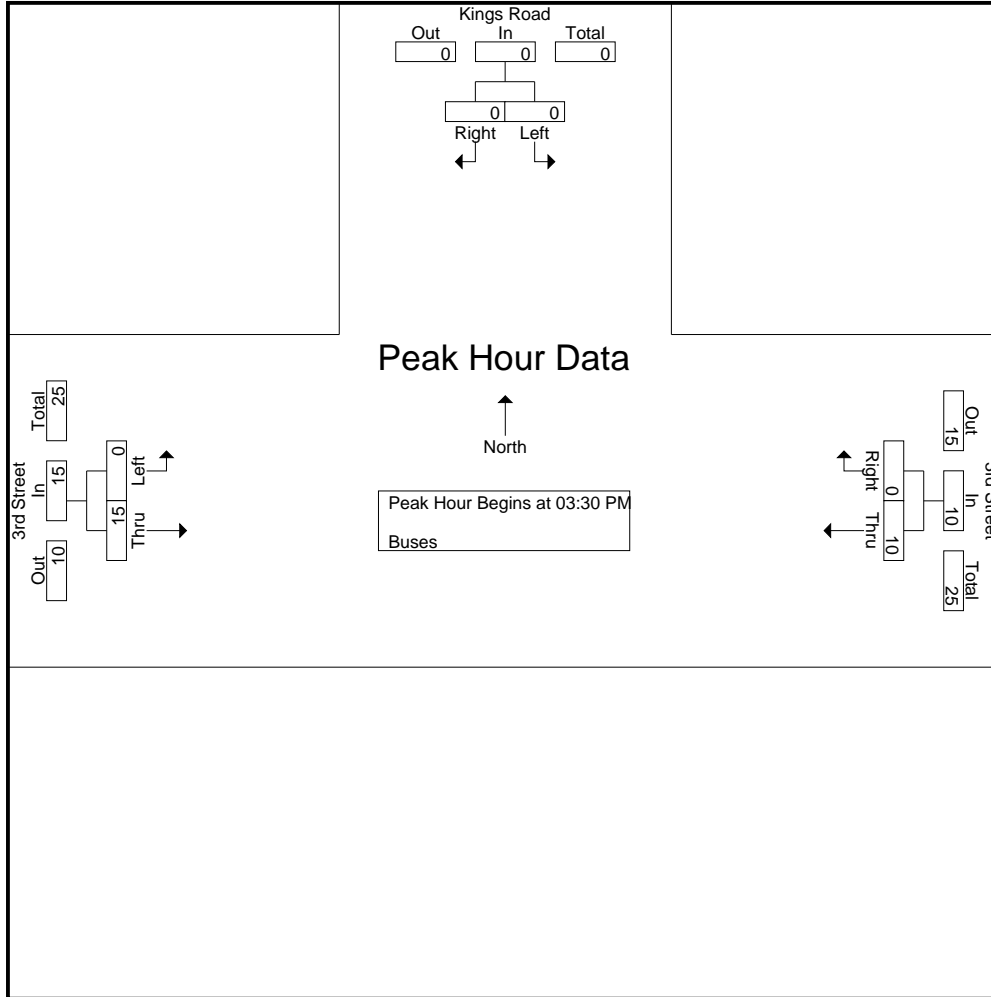
Groups Printed- Buses

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:00 PM	0	0	0	2	0	2	0	4	4	6
03:15 PM	0	0	0	4	0	4	0	2	2	6
03:30 PM	0	0	0	3	0	3	0	5	5	8
03:45 PM	0	0	0	3	0	3	0	2	2	5
Total	0	0	0	12	0	12	0	13	13	25
04:00 PM	0	0	0	0	0	0	0	4	4	4
04:15 PM	0	0	0	4	0	4	0	4	4	8
04:30 PM	0	0	0	4	0	4	0	4	4	8
04:45 PM	0	0	0	4	0	4	0	2	2	6
Total	0	0	0	12	0	12	0	14	14	26
05:00 PM	0	0	0	2	0	2	0	1	1	3
05:15 PM	0	0	0	1	0	1	0	4	4	5
05:30 PM	0	0	0	4	0	4	0	1	1	5
05:45 PM	0	0	0	3	0	3	0	5	5	8
Total	0	0	0	10	0	10	0	11	11	21
Grand Total	0	0	0	34	0	34	0	38	38	72
Apprch %	0	0	0	100	0	100	0	100		
Total %	0	0	0	47.2	0	47.2	0	52.8	52.8	

Start Time	Kings Road Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	0	0	0	3	0	3	0	5	5	8
03:45 PM	0	0	0	3	0	3	0	2	2	5
04:00 PM	0	0	0	0	0	0	0	4	4	4
04:15 PM	0	0	0	4	0	4	0	4	4	8
Total Volume	0	0	0	10	0	10	0	15	15	25
% App. Total	0	0	0	100	0	100	0	100		
PHF	.000	.000	.000	.625	.000	.625	.000	.750	.750	.781

City of Los Angeles  
 N/S: Kings Road  
 E/W: 3rd Street  
 Weather: Clear

File Name : 01\_LAC\_Kings\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
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Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	03:30 PM			03:30 PM			03:30 PM		
+0 mins.	0	0	0	3	0	3	0	5	5
+15 mins.	0	0	0	3	0	3	0	2	2
+30 mins.	0	0	0	0	0	0	0	4	4
+45 mins.	0	0	0	4	0	4	0	4	4
Total Volume	0	0	0	10	0	10	0	15	15
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.625	.000	.625	.000	.750	.750





**City Of Los Angeles**  
**Department Of Transportation**  
**MANUAL TRAFFIC COUNT SUMMARY**

STREET:

North/South Kings Road

East/West 3rd Street

Day: Thursday Date: May 25, 2023 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Western I/S CODE 13472

	N/B	S/B	E/B	W/B
DUAL-WHEELED BIKES	0	5	37	67
BUSES	0	1	16	21
	0	0	73	66

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	0 7.00	16 9.45	135 9.45	358 9.00
PM PK 15 MIN	0 3.00	17 3.45	274 4.15	176 5.15
AM PK HOUR	0 7.00	50 9.00	437 9.00	1274 8.15
PM PK HOUR	0 3.00	57 3.00	1016 4.15	623 5.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	1	0	15	16
8-9	3	0	31	34
9-10	7	0	43	50
3-4	11	0	46	57
4-5	13	0	22	35
5-6	15	0	22	37
<b>TOTAL</b>	<b>50</b>	<b>0</b>	<b>179</b>	<b>229</b>

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
16	0	0	14	0
34	0	0	21	0
50	0	0	31	0
57	0	0	55	3
35	0	0	60	3
37	0	0	48	7
<b>229</b>	<b>0</b>	<b>0</b>	<b>229</b>	<b>13</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	8	264	0	272
8-9	10	417	0	427
9-10	9	428	0	437
3-4	39	951	0	990
4-5	37	934	0	971
5-6	53	917	0	970
<b>TOTAL</b>	<b>156</b>	<b>3911</b>	<b>0</b>	<b>4067</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	1035	8	1043
8-9	0	1180	21	1201
9-10	0	1220	25	1245
3-4	0	561	22	583
4-5	0	573	24	597
5-6	0	602	21	623
<b>TOTAL</b>	<b>0</b>	<b>5171</b>	<b>121</b>	<b>5292</b>

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
1315	0	0	0	0
1628	0	0	0	0
1682	0	0	0	0
1573	6	0	2	0
1568	0	0	0	0
1593	5	0	0	0
<b>9359</b>	<b>11</b>	<b>0</b>	<b>2</b>	<b>0</b>

City of Los Angeles  
 Department of Transportation  
**BICYCLE COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Kings Road		
<b>East/West:</b>	3rd Street		
<b>Day:</b>	Thursday	<b>Date:</b>	5/25/2023
<b>School Day:</b>	Yes	<b>District:</b>	Western
<b>Hours:</b>	7-10 AM, 3-6 PM	<b>Staff:</b>	CUI
		<b>Weather:</b>	CLEAR
		<b>I/S Code:</b>	13472

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total	N-S
7-8	0	0	0	0	0
8-9	0	0	0	0	0
9-10	1	0	0	1	1
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
<b>TOTAL</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	2	0	2
8-9	0	0	0	0
9-10	0	4	0	4
3-4	0	3	0	3
4-5	0	4	0	4
5-6	2	1	0	3
<b>TOTAL</b>	<b>2</b>	<b>14</b>	<b>0</b>	<b>16</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total	E-W
7-8	0	4	0	4	6
8-9	0	5	0	5	5
9-10	0	3	0	3	7
3-4	0	2	0	2	5
4-5	0	1	0	1	5
5-6	0	6	0	6	9
<b>TOTAL</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>21</b>	<b>37</b>

**REMARKS (6 hour total):**

	NB	SB	EB	WB	TOTAL
- Female Riders	0	0	1	1	2
- No helmet riders	0	1	14	16	31
- Sidewalk Riding	0	1	10	9	20
- Wrong way riding	0	1	7	5	13

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: CUI

LADOT 2015 CMP

**PEDESTRIAN COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Kings Road				
<b>East/West:</b>	3rd Street				
<b>Day:</b>	Thursday	<b>Date:</b>	5/25/2023	<b>Weather:</b>	CLEAR
<b>School Day:</b>	YES	<b>District:</b>	Western	<b>I/S Code:</b>	13472
<b>Hours:</b>	7-10 AM, 3-6 PM	<b>Staff:</b>	CUI		

**AM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	6	0	0	0	6
7:15-7:30	3	0	0	0	3
7:30-7:45	2	0	0	0	2
7:45-8:00	3	0	0	0	3
8:00-8:15	4	0	0	0	4
8:15-8:30	7	0	0	0	7
8:30-8:45	3	0	0	0	3
8:45-9:00	7	0	0	0	7
9:00-9:15	5	0	0	0	5
9:15-9:30	6	0	0	0	6
9:30-9:45	12	0	0	0	12
9:45-10:00	8	0	0	0	8

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7 - 8	14	0	0	0	14
8 - 9	21	0	0	0	21
9 - 10	31	0	0	0	31
<b>TOTAL</b>	<b>66</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>66</b>

**PM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	13	0	0	2	15
3:15-3:30	17	0	0	1	18
3:30-3:45	14	0	2	0	16
3:45-4:00	14	0	0	3	17
4:00-4:15	12	0	0	0	12
4:15-4:30	20	0	0	0	20
4:30-4:45	13	0	0	0	13
4:45-5:00	18	0	0	0	18
5:00-5:15	12	0	0	2	14
5:15-5:30	18	0	0	0	18
5:30-5:45	10	0	0	1	11
5:45-6:00	15	0	0	2	17

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3 - 4	58	0	2	6	66
4 - 5	63	0	0	0	63
5 - 6	55	0	0	5	60
<b>TOTAL</b>	<b>176</b>	<b>0</b>	<b>2</b>	<b>11</b>	<b>189</b>

**REMARKS (6 hour total):**

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
0	0	0	0	0
10	0	0	0	10

N: North, S: South, E: East, W: West, I/S: Intersection

Source:

LADOT 2015 CMP

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd AM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 1

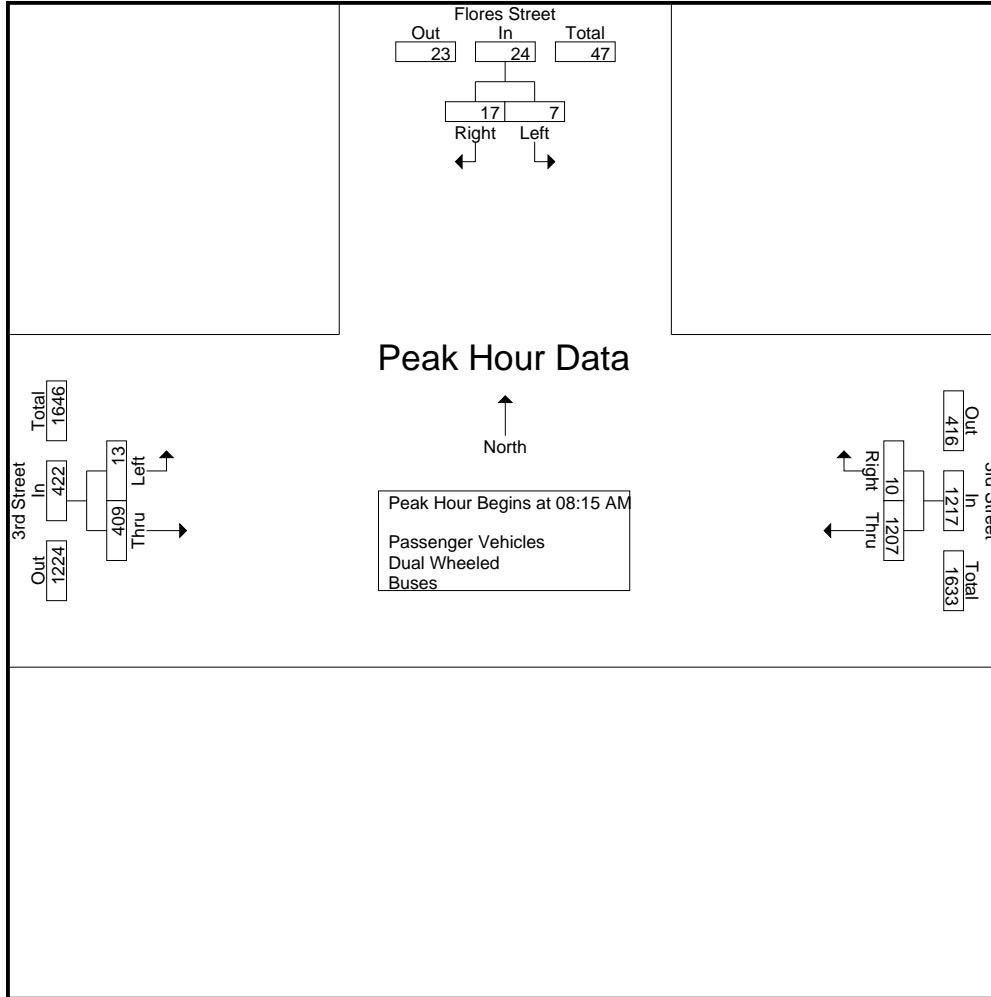
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	1	0	1	152	3	155	2	48	50	206
07:15 AM	0	3	3	242	4	246	1	50	51	300
07:30 AM	2	4	6	306	3	309	2	78	80	395
07:45 AM	0	3	3	305	0	305	2	82	84	392
Total	3	10	13	1005	10	1015	7	258	265	1293
08:00 AM	0	6	6	276	5	281	4	95	99	386
08:15 AM	2	4	6	278	0	278	1	89	90	374
08:30 AM	2	6	8	299	4	303	4	116	120	431
08:45 AM	3	6	9	303	1	304	6	109	115	428
Total	7	22	29	1156	10	1166	15	409	424	1619
09:00 AM	0	1	1	327	5	332	2	95	97	430
09:15 AM	4	6	10	266	3	269	6	80	86	365
09:30 AM	3	5	8	284	3	287	7	114	121	416
09:45 AM	3	5	8	283	6	289	5	131	136	433
Total	10	17	27	1160	17	1177	20	420	440	1644
Grand Total	20	49	69	3321	37	3358	42	1087	1129	4556
Apprch %	29	71		98.9	1.1		3.7	96.3		
Total %	0.4	1.1	1.5	72.9	0.8	73.7	0.9	23.9	24.8	
Passenger Vehicles	20	47	67	3233	35	3268	41	1025	1066	4401
% Passenger Vehicles	100	95.9	97.1	97.4	94.6	97.3	97.6	94.3	94.4	96.6
Dual Wheeled	0	2	2	56	2	58	1	27	28	88
% Dual Wheeled	0	4.1	2.9	1.7	5.4	1.7	2.4	2.5	2.5	1.9
Buses	0	0	0	32	0	32	0	35	35	67
% Buses	0	0	0	1	0	1	0	3.2	3.1	1.5

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:15 AM										
08:15 AM	2	4	6	278	0	278	1	89	90	374
08:30 AM	2	6	8	299	4	303	4	116	120	431
08:45 AM	3	6	9	303	1	304	6	109	115	428
09:00 AM	0	1	1	327	5	332	2	95	97	430
Total Volume	7	17	24	1207	10	1217	13	409	422	1663
% App. Total	29.2	70.8		99.2	0.8		3.1	96.9		
PHF	.583	.708	.667	.923	.500	.916	.542	.881	.879	.965

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd AM  
 Site Code : 04123528  
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Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM			08:15 AM			09:00 AM		
+0 mins.	0	6	6	278	0	278	2	95	97
+15 mins.	2	4	6	299	4	303	6	80	86
+30 mins.	2	6	8	303	1	304	7	114	121
+45 mins.	3	6	9	327	5	332	5	131	136
Total Volume	7	22	29	1207	10	1217	20	420	440
% App. Total	24.1	75.9		99.2	0.8		4.5	95.5	
PHF	.583	.917	.806	.923	.500	.916	.714	.802	.809

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd AM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
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Groups Printed- Passenger Vehicles

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	1	0	1	147	2	149	1	41	42	192
07:15 AM	0	3	3	234	4	238	1	40	41	282
07:30 AM	2	4	6	295	3	298	2	71	73	377
07:45 AM	0	3	3	300	0	300	2	76	78	381
Total	3	10	13	976	9	985	6	228	234	1232
08:00 AM	0	6	6	274	5	279	4	90	94	379
08:15 AM	2	4	6	269	0	269	1	87	88	363
08:30 AM	2	5	7	294	3	297	4	111	115	419
08:45 AM	3	6	9	290	1	291	6	103	109	409
Total	7	21	28	1127	9	1136	15	391	406	1570
09:00 AM	0	1	1	321	5	326	2	93	95	422
09:15 AM	4	6	10	256	3	259	6	79	85	354
09:30 AM	3	4	7	276	3	279	7	108	115	401
09:45 AM	3	5	8	277	6	283	5	126	131	422
Total	10	16	26	1130	17	1147	20	406	426	1599
Grand Total	20	47	67	3233	35	3268	41	1025	1066	4401
Apprch %	29.9	70.1		98.9	1.1		3.8	96.2		
Total %	0.5	1.1	1.5	73.5	0.8	74.3	0.9	23.3	24.2	

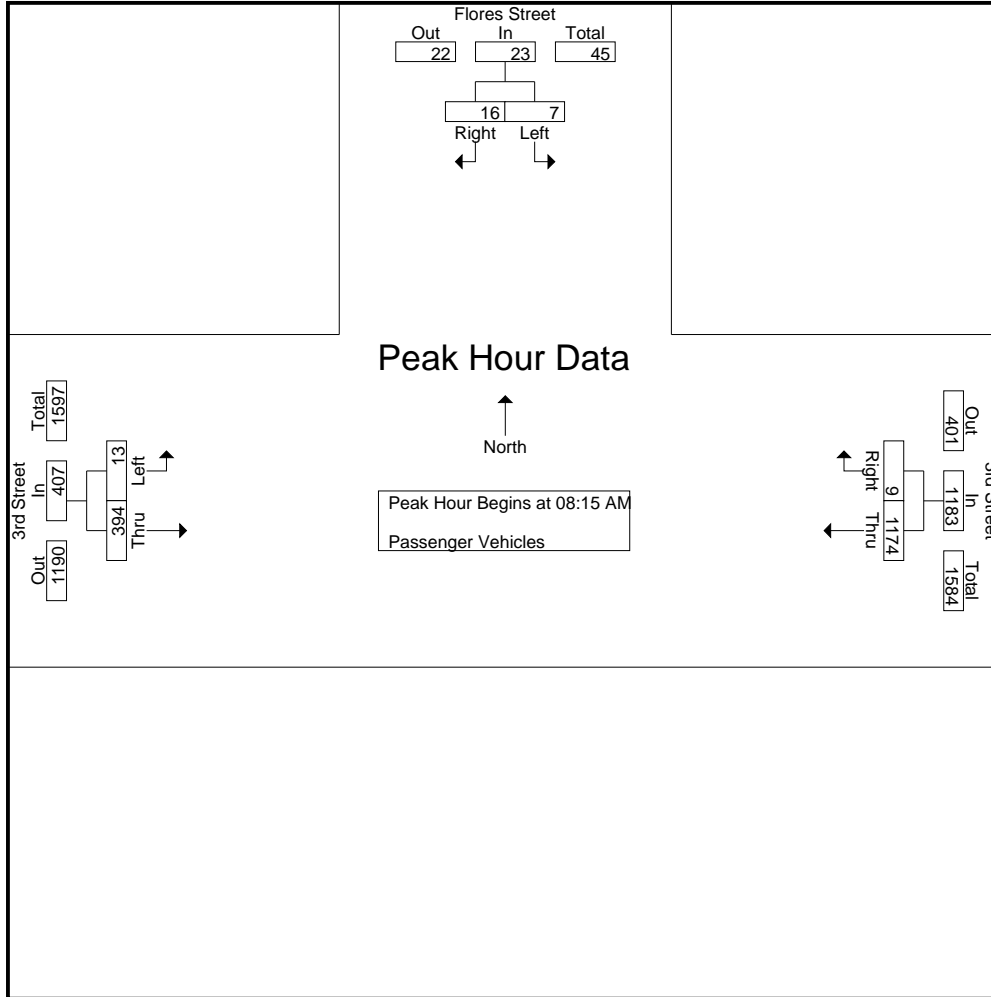
Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
08:15 AM	2	4	6	269	0	269	1	87	88	363
08:30 AM	2	5	7	294	3	297	4	111	115	419
08:45 AM	3	6	9	290	1	291	6	103	109	409
09:00 AM	0	1	1	321	5	326	2	93	95	422
Total Volume	7	16	23	1174	9	1183	13	394	407	1613
% App. Total	30.4	69.6		99.2	0.8		3.2	96.8		
PHF	.583	.667	.639	.914	.450	.907	.542	.887	.885	.956

Peak Hour Analysis From 08:15 AM to 09:00 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:15 AM

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd AM  
 Site Code : 04123528  
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Peak Hour Analysis From 08:15 AM to 09:00 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:15 AM			08:15 AM			08:15 AM		
+0 mins.	2	4	6	269	0	269	1	87	88
+15 mins.	2	5	7	294	3	297	4	111	115
+30 mins.	3	6	9	290	1	291	6	103	109
+45 mins.	0	1	1	321	5	326	2	93	95
Total Volume	7	16	23	1174	9	1183	13	394	407
% App. Total	30.4	69.6		99.2	0.8		3.2	96.8	
PHF	.583	.667	.639	.914	.450	.907	.542	.887	.885

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd AM  
 Site Code : 04123528  
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Groups Printed- Dual Wheeled

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	2	1	3	1	1	2	5
07:15 AM	0	0	0	4	0	4	0	7	7	11
07:30 AM	0	0	0	8	0	8	0	3	3	11
07:45 AM	0	0	0	2	0	2	0	3	3	5
Total	0	0	0	16	1	17	1	14	15	32
08:00 AM	0	0	0	2	0	2	0	1	1	3
08:15 AM	0	0	0	5	0	5	0	0	0	5
08:30 AM	0	1	1	4	1	5	0	2	2	8
08:45 AM	0	0	0	9	0	9	0	3	3	12
Total	0	1	1	20	1	21	0	6	6	28
09:00 AM	0	0	0	3	0	3	0	1	1	4
09:15 AM	0	0	0	7	0	7	0	0	0	7
09:30 AM	0	1	1	5	0	5	0	3	3	9
09:45 AM	0	0	0	5	0	5	0	3	3	8
Total	0	1	1	20	0	20	0	7	7	28
Grand Total	0	2	2	56	2	58	1	27	28	88
Apprch %	0	100		96.6	3.4		3.6	96.4		
Total %	0	2.3	2.3	63.6	2.3	65.9	1.1	30.7	31.8	

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
08:15 AM	0	0	0	5	0	5	0	0	0	5
08:30 AM	0	1	1	4	1	5	0	2	2	8
08:45 AM	0	0	0	9	0	9	0	3	3	12
09:00 AM	0	0	0	3	0	3	0	1	1	4
Total Volume	0	1	1	21	1	22	0	6	6	29
% App. Total	0	100		95.5	4.5		0	100		
PHF	.000	.250	.250	.583	.250	.611	.000	.500	.500	.604

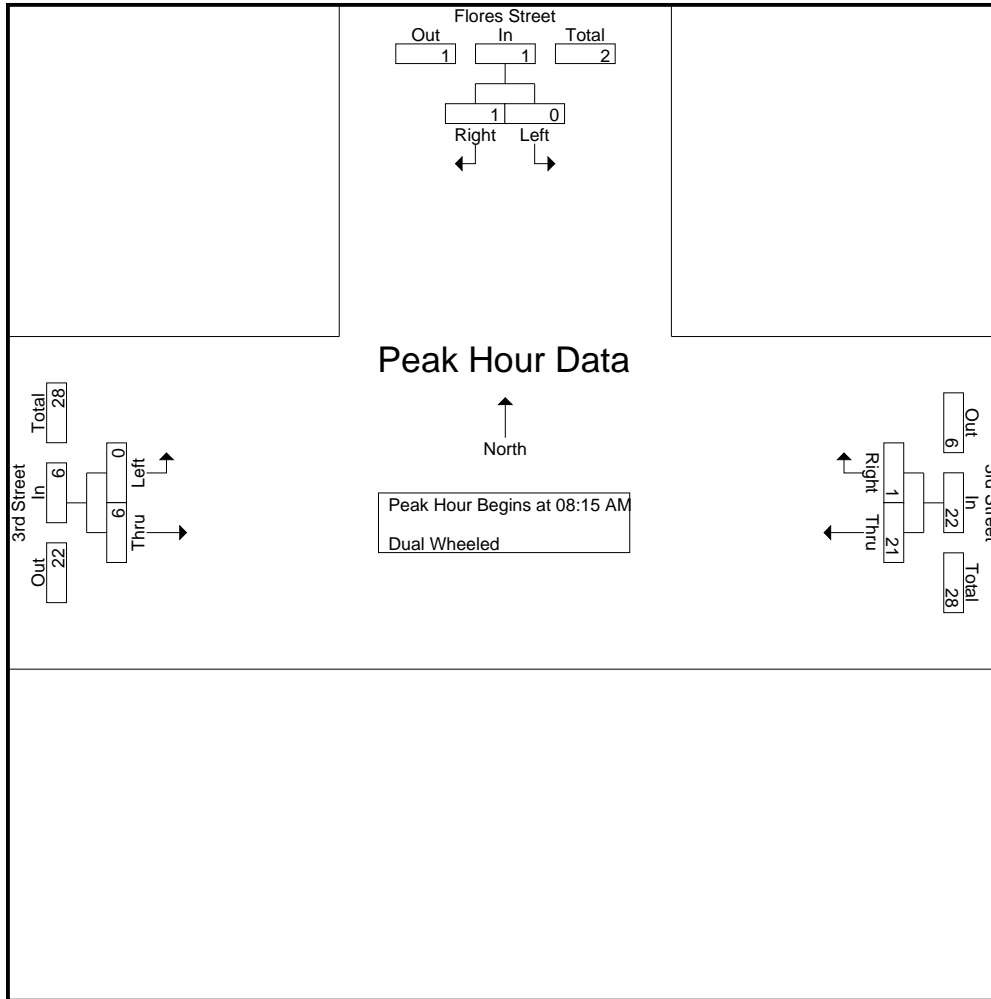
Peak Hour Analysis From 08:15 AM to 09:00 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:15 AM



City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd AM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
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Peak Hour Analysis From 08:15 AM to 09:00 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:15 AM			08:15 AM			08:15 AM		
+0 mins.	0	0	0	5	0	5	0	0	0
+15 mins.	0	1	1	4	1	5	0	2	2
+30 mins.	0	0	0	9	0	9	0	3	3
+45 mins.	0	0	0	3	0	3	0	1	1
Total Volume	0	1	1	21	1	22	0	6	6
% App. Total	0	100		95.5	4.5		0	100	
PHF	.000	.250	.250	.583	.250	.611	.000	.500	.500

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd AM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 1

Groups Printed- Buses

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	3	0	3	0	6	6	9
07:15 AM	0	0	0	4	0	4	0	3	3	7
07:30 AM	0	0	0	3	0	3	0	4	4	7
07:45 AM	0	0	0	3	0	3	0	3	3	6
Total	0	0	0	13	0	13	0	16	16	29
08:00 AM	0	0	0	0	0	0	0	4	4	4
08:15 AM	0	0	0	4	0	4	0	2	2	6
08:30 AM	0	0	0	1	0	1	0	3	3	4
08:45 AM	0	0	0	4	0	4	0	3	3	7
Total	0	0	0	9	0	9	0	12	12	21
09:00 AM	0	0	0	3	0	3	0	1	1	4
09:15 AM	0	0	0	3	0	3	0	1	1	4
09:30 AM	0	0	0	3	0	3	0	3	3	6
09:45 AM	0	0	0	1	0	1	0	2	2	3
Total	0	0	0	10	0	10	0	7	7	17
Grand Total	0	0	0	32	0	32	0	35	35	67
Apprch %	0	0	0	100	0	100	0	100	100	
Total %	0	0	0	47.8	0	47.8	0	52.2	52.2	

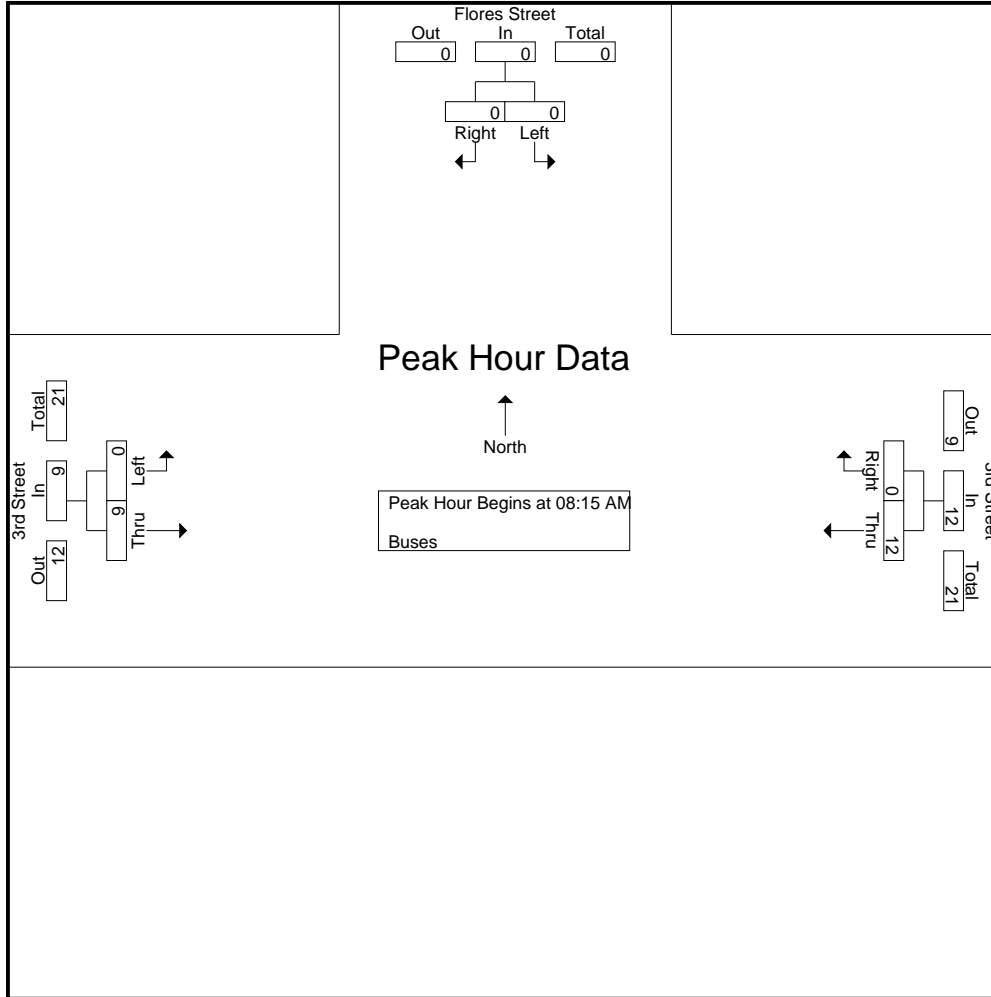
Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
08:15 AM	0	0	0	4	0	4	0	2	2	6
08:30 AM	0	0	0	1	0	1	0	3	3	4
08:45 AM	0	0	0	4	0	4	0	3	3	7
09:00 AM	0	0	0	3	0	3	0	1	1	4
Total Volume	0	0	0	12	0	12	0	9	9	21
% App. Total	0	0	0	100	0	100	0	100	100	
PHF	.000	.000	.000	.750	.000	.750	.000	.750	.750	.750

Peak Hour Analysis From 08:15 AM to 09:00 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:15 AM

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd AM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 2



Peak Hour Analysis From 08:15 AM to 09:00 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:15 AM			08:15 AM			08:15 AM		
+0 mins.	0	0	0	4	0	4	0	2	2
+15 mins.	0	0	0	1	0	1	0	3	3
+30 mins.	0	0	0	4	0	4	0	3	3
+45 mins.	0	0	0	3	0	3	0	1	1
Total Volume	0	0	0	12	0	12	0	9	9
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.750	.000	.750	.000	.750	.750

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 1

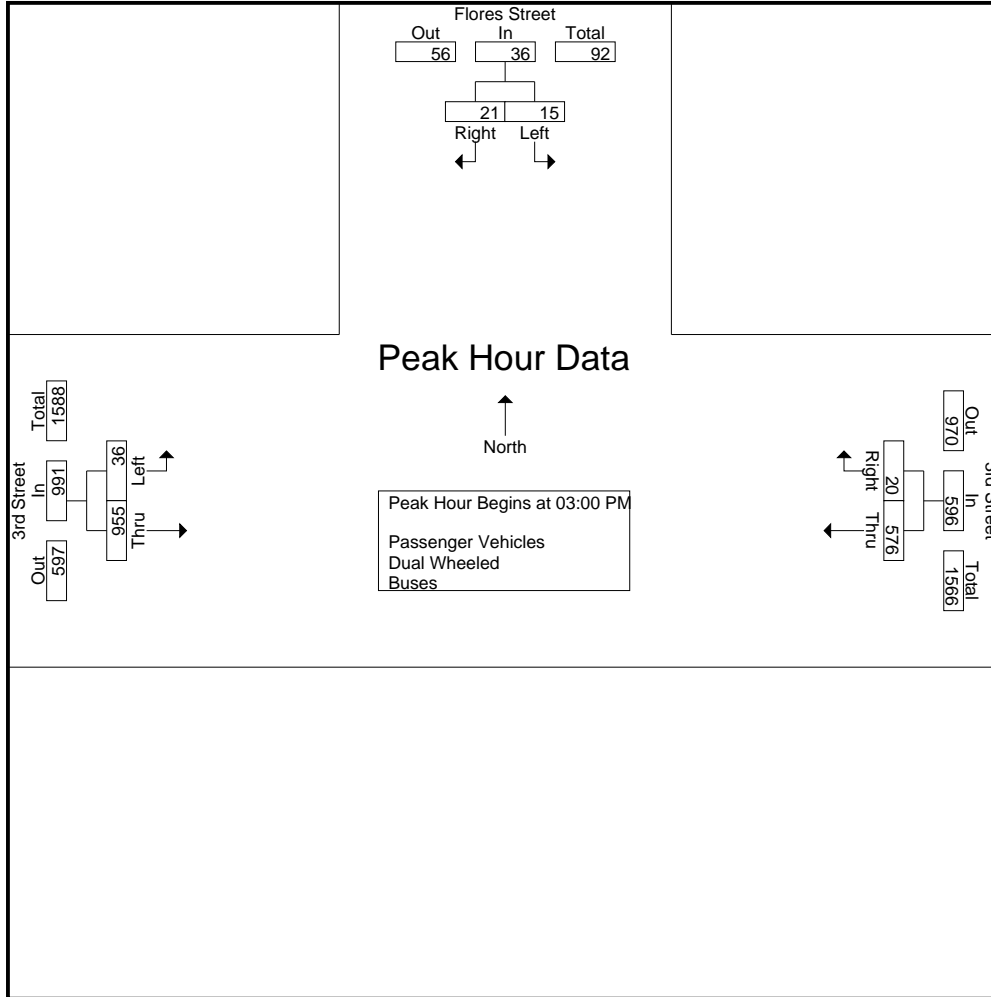
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:00 PM	4	5	9	152	10	162	10	221	231	402
03:15 PM	6	4	10	135	1	136	9	243	252	398
03:30 PM	4	7	11	149	5	154	6	255	261	426
03:45 PM	1	5	6	140	4	144	11	236	247	397
Total	15	21	36	576	20	596	36	955	991	1623
04:00 PM	1	3	4	139	8	147	11	205	216	367
04:15 PM	5	4	9	151	4	155	9	260	269	433
04:30 PM	0	8	8	142	4	146	11	222	233	387
04:45 PM	2	5	7	133	3	136	16	239	255	398
Total	8	20	28	565	19	584	47	926	973	1585
05:00 PM	1	6	7	139	5	144	7	242	249	400
05:15 PM	4	3	7	167	8	175	13	219	232	414
05:30 PM	1	5	6	143	7	150	14	226	240	396
05:45 PM	5	9	14	142	6	148	12	219	231	393
Total	11	23	34	591	26	617	46	906	952	1603
Grand Total	34	64	98	1732	65	1797	129	2787	2916	4811
Apprch %	34.7	65.3		96.4	3.6		4.4	95.6		
Total %	0.7	1.3	2	36	1.4	37.4	2.7	57.9	60.6	
Passenger Vehicles	33	64	97	1688	65	1753	129	2740	2869	4719
% Passenger Vehicles	97.1	100	99	97.5	100	97.6	100	98.3	98.4	98.1
Dual Wheeled	1	0	1	10	0	10	0	9	9	20
% Dual Wheeled	2.9	0	1	0.6	0	0.6	0	0.3	0.3	0.4
Buses	0	0	0	34	0	34	0	38	38	72
% Buses	0	0	0	2	0	1.9	0	1.4	1.3	1.5

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	4	5	9	<b>152</b>	<b>10</b>	<b>162</b>	10	221	231	402
03:15 PM	<b>6</b>	4	10	135	1	136	9	243	252	398
03:30 PM	4	<b>7</b>	<b>11</b>	149	5	154	6	<b>255</b>	<b>261</b>	<b>426</b>
03:45 PM	1	5	6	140	4	144	<b>11</b>	236	247	397
Total Volume	15	21	36	576	20	596	36	955	991	1623
% App. Total	41.7	58.3		96.6	3.4		3.6	96.4		
PHF	.625	.750	.818	.947	.500	.920	.818	.936	.949	.952

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	03:00 PM			05:00 PM			04:15 PM		
+0 mins.	4	5	9	139	5	144	9	<b>260</b>	<b>269</b>
+15 mins.	<b>6</b>	4	10	<b>167</b>	<b>8</b>	<b>175</b>	11	222	233
+30 mins.	4	<b>7</b>	<b>11</b>	143	7	150	<b>16</b>	239	255
+45 mins.	1	5	6	142	6	148	7	242	249
Total Volume	15	21	36	591	26	617	43	963	1006
% App. Total	41.7	58.3		95.8	4.2		4.3	95.7	
PHF	.625	.750	.818	.885	.813	.881	.672	.926	.935

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:00 PM	4	5	9	149	10	159	10	214	224	392
03:15 PM	6	4	10	131	1	132	9	239	248	390
03:30 PM	3	7	10	143	5	148	6	248	254	412
03:45 PM	1	5	6	137	4	141	11	234	245	392
Total	14	21	35	560	20	580	36	935	971	1586
04:00 PM	1	3	4	139	8	147	11	201	212	363
04:15 PM	5	4	9	147	4	151	9	255	264	424
04:30 PM	0	8	8	136	4	140	11	218	229	377
04:45 PM	2	5	7	128	3	131	16	237	253	391
Total	8	20	28	550	19	569	47	911	958	1555
05:00 PM	1	6	7	137	5	142	7	240	247	396
05:15 PM	4	3	7	164	8	172	13	215	228	407
05:30 PM	1	5	6	138	7	145	14	225	239	390
05:45 PM	5	9	14	139	6	145	12	214	226	385
Total	11	23	34	578	26	604	46	894	940	1578
Grand Total	33	64	97	1688	65	1753	129	2740	2869	4719
Apprch %	34	66		96.3	3.7		4.5	95.5		
Total %	0.7	1.4	2.1	35.8	1.4	37.1	2.7	58.1	60.8	

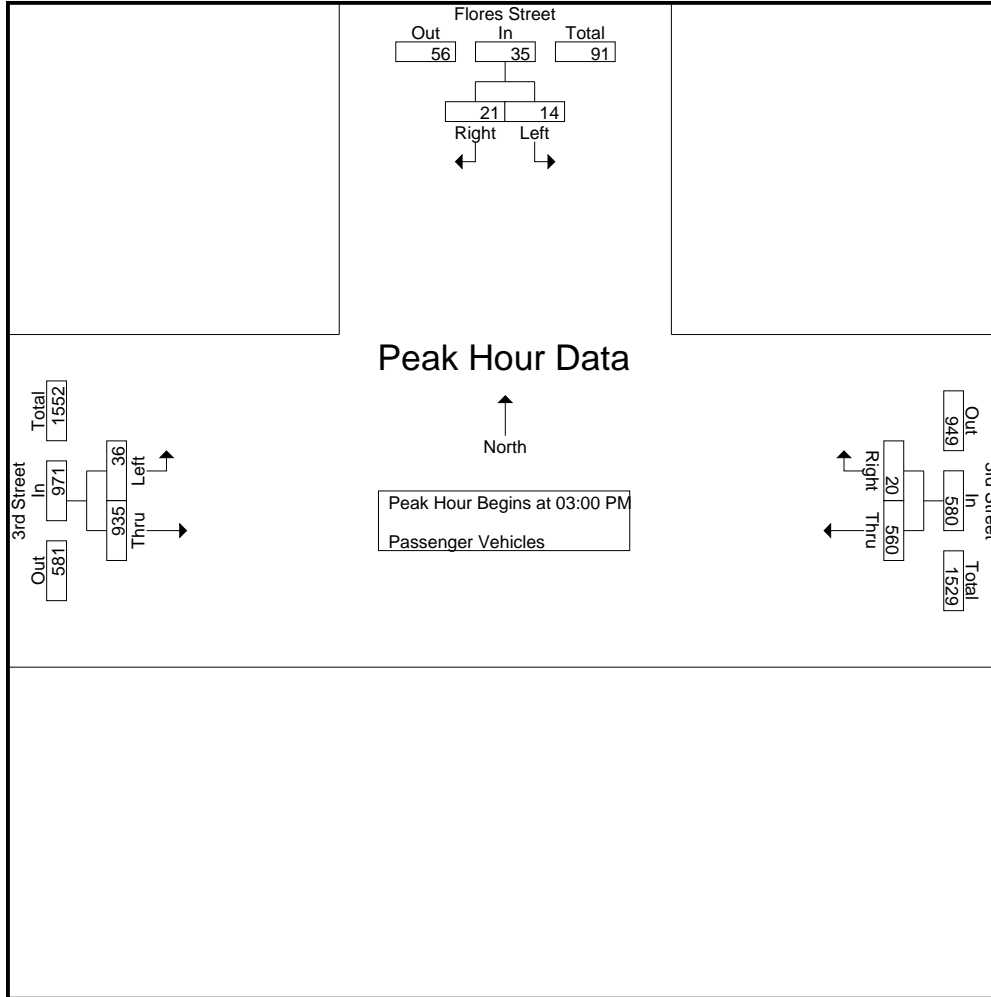
Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:00 PM	4	5	9	<b>149</b>	<b>10</b>	<b>159</b>	10	214	224	392
03:15 PM	<b>6</b>	4	<b>10</b>	131	1	132	9	239	248	390
03:30 PM	3	<b>7</b>	10	143	5	148	6	<b>248</b>	<b>254</b>	<b>412</b>
03:45 PM	1	5	6	137	4	141	<b>11</b>	234	245	392
Total Volume	14	21	35	560	20	580	36	935	971	1586
% App. Total	40	60		96.6	3.4		3.7	96.3		
PHF	.583	.750	.875	.940	.500	.912	.818	.943	.956	.962

Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 03:00 PM

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 2



Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	03:00 PM			03:00 PM			03:00 PM		
+0 mins.	4	5	9	<b>149</b>	<b>10</b>	<b>159</b>	10	214	224
+15 mins.	<b>6</b>	4	<b>10</b>	131	1	132	9	239	248
+30 mins.	3	<b>7</b>	10	143	5	148	6	<b>248</b>	<b>254</b>
+45 mins.	1	5	6	137	4	141	<b>11</b>	234	245
Total Volume	14	21	35	560	20	580	36	935	971
% App. Total	40	60		96.6	3.4		3.7	96.3	
PHF	.583	.750	.875	.940	.500	.912	.818	.943	.956

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 1

Groups Printed- Dual Wheeled

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:00 PM	0	0	0	1	0	1	0	3	3	4
03:15 PM	0	0	0	0	0	0	0	2	2	2
03:30 PM	1	0	1	2	0	2	0	1	1	4
03:45 PM	0	0	0	1	0	1	0	1	1	2
Total	1	0	1	4	0	4	0	7	7	12
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	2	0	2	0	0	0	2
04:45 PM	0	0	0	1	0	1	0	0	0	1
Total	0	0	0	3	0	3	0	1	1	4
05:00 PM	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	0	2	0	2	0	0	0	2
05:30 PM	0	0	0	1	0	1	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	3	0	3	0	1	1	4
Grand Total	1	0	1	10	0	10	0	9	9	20
Apprch %	100	0		100	0		0	100		
Total %	5	0	5	50	0	50	0	45	45	

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:00 PM	0	0	0	1	0	1	0	3	3	4
03:15 PM	0	0	0	0	0	0	0	2	2	2
03:30 PM	1	0	1	2	0	2	0	1	1	4
03:45 PM	0	0	0	1	0	1	0	1	1	2
Total Volume	1	0	1	4	0	4	0	7	7	12
% App. Total	100	0		100	0		0	100		
PHF	.250	.000	.250	.500	.000	.500	.000	.583	.583	.750

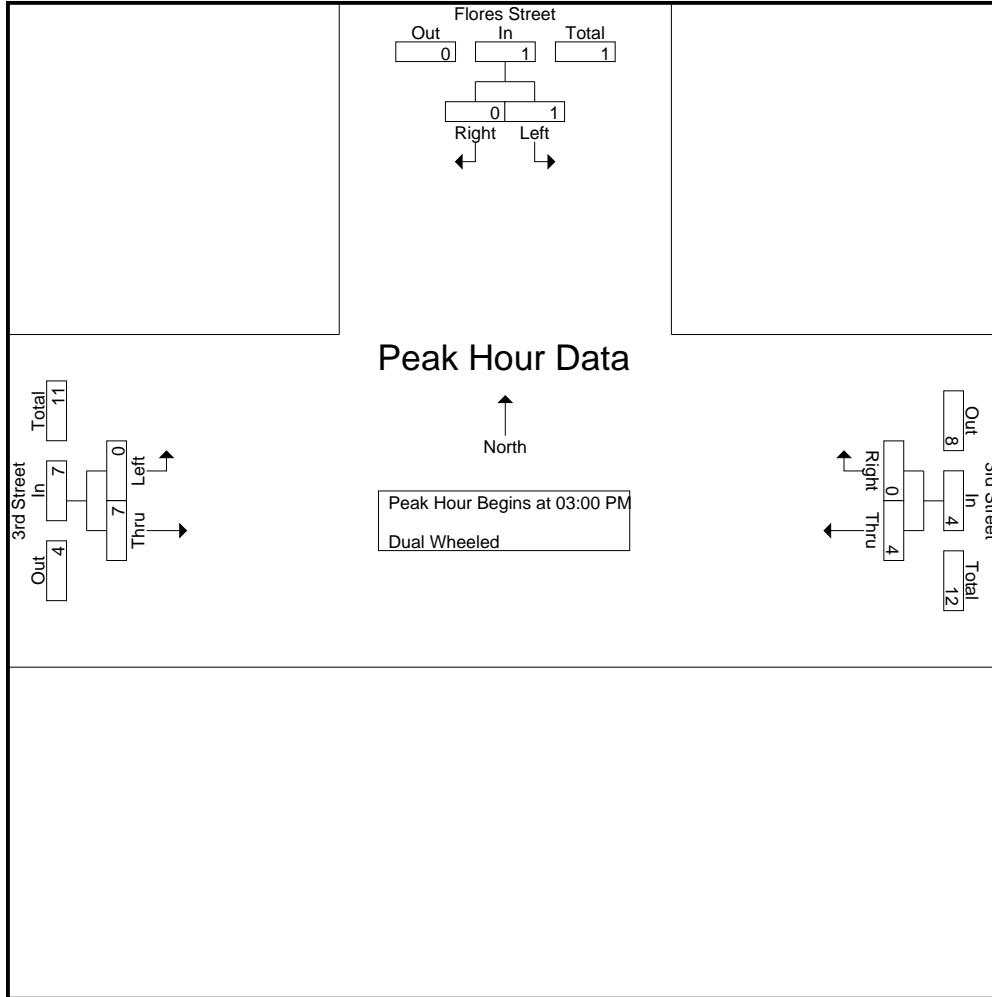
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 03:00 PM



City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
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Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	03:00 PM			03:00 PM			03:00 PM		
+0 mins.	0	0	0	1	0	1	0	3	3
+15 mins.	0	0	0	0	0	0	0	2	2
+30 mins.	1	0	1	2	0	2	0	1	1
+45 mins.	0	0	0	1	0	1	0	1	1
Total Volume	1	0	1	4	0	4	0	7	7
% App. Total	100	0		100	0		0	100	
PHF	.250	.000	.250	.500	.000	.500	.000	.583	.583

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
 Page No : 1

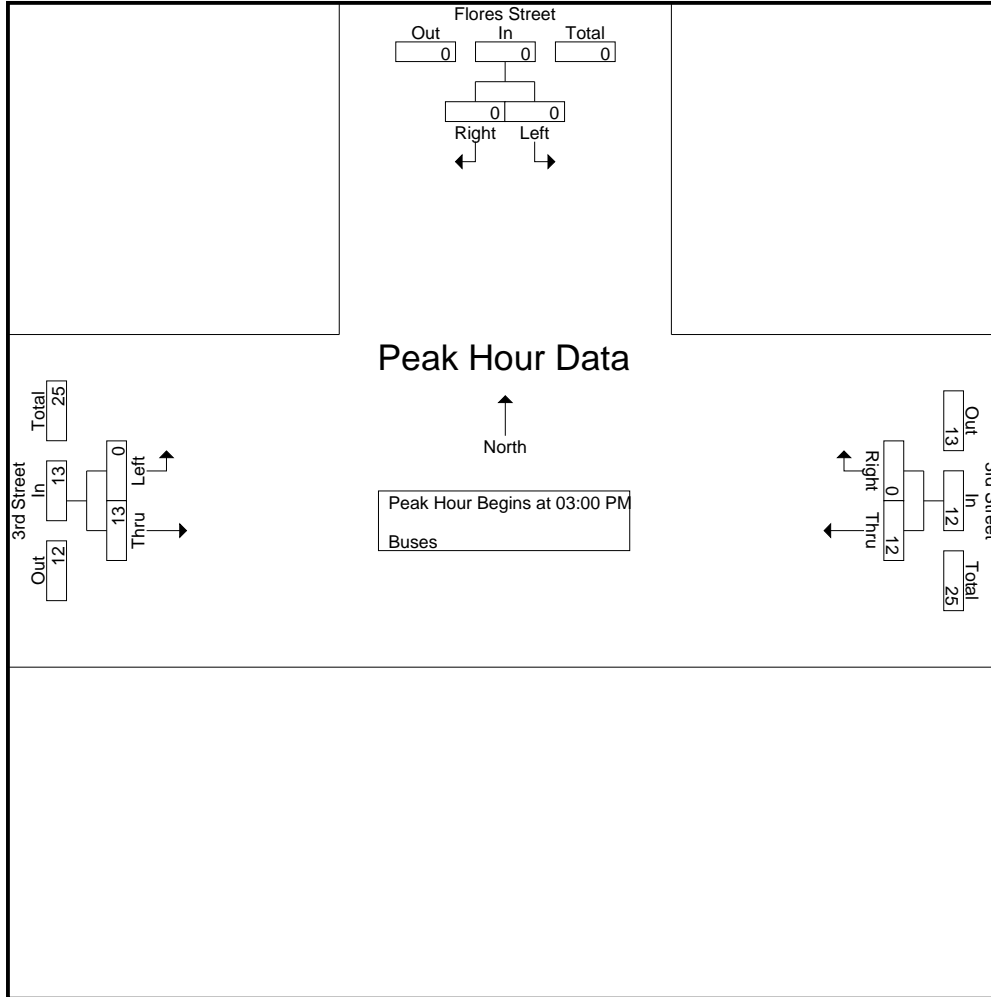
Groups Printed- Buses

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
03:00 PM	0	0	0	2	0	2	0	4	4	6
03:15 PM	0	0	0	4	0	4	0	2	2	6
03:30 PM	0	0	0	4	0	4	0	6	6	10
03:45 PM	0	0	0	2	0	2	0	1	1	3
Total	0	0	0	12	0	12	0	13	13	25
04:00 PM	0	0	0	0	0	0	0	4	4	4
04:15 PM	0	0	0	4	0	4	0	4	4	8
04:30 PM	0	0	0	4	0	4	0	4	4	8
04:45 PM	0	0	0	4	0	4	0	2	2	6
Total	0	0	0	12	0	12	0	14	14	26
05:00 PM	0	0	0	2	0	2	0	1	1	3
05:15 PM	0	0	0	1	0	1	0	4	4	5
05:30 PM	0	0	0	4	0	4	0	1	1	5
05:45 PM	0	0	0	3	0	3	0	5	5	8
Total	0	0	0	10	0	10	0	11	11	21
Grand Total	0	0	0	34	0	34	0	38	38	72
Apprch %	0	0	0	100	0	100	0	100		
Total %	0	0	0	47.2	0	47.2	0	52.8	52.8	

Start Time	Flores Street Southbound			3rd Street Westbound			3rd Street Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	0	0	0	2	0	2	0	4	4	6
03:15 PM	0	0	0	4	0	4	0	2	2	6
03:30 PM	0	0	0	4	0	4	0	6	6	10
03:45 PM	0	0	0	2	0	2	0	1	1	3
Total Volume	0	0	0	12	0	12	0	13	13	25
% App. Total	0	0	0	100	0	100	0	100		
PHF	.000	.000	.000	.750	.000	.750	.000	.542	.542	.625

City of Los Angeles  
 N/S: Flores Street  
 E/W: 3rd Street  
 Weather: Clear

File Name : 02\_LAC\_Flores\_3rd PM  
 Site Code : 04123528  
 Start Date : 5/25/2023  
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Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	03:00 PM			03:00 PM			03:00 PM		
+0 mins.	0	0	0	2	0	2	0	4	4
+15 mins.	0	0	0	4	0	4	0	2	2
+30 mins.	0	0	0	4	0	4	0	6	6
+45 mins.	0	0	0	2	0	2	0	1	1
Total Volume	0	0	0	12	0	12	0	13	13
% App. Total	0	0	0	100	0	100	0	100	100
PHF	.000	.000	.000	.750	.000	.750	.000	.542	.542



**City Of Los Angeles**  
**Department Of Transportation**  
**MANUAL TRAFFIC COUNT SUMMARY**

STREET:

North/South Flores Street

East/West 3rd Street

Day: Thursday Date: May 25, 2023 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Western I/S CODE 0

	N/B	S/B	E/B	W/B
DUAL-WHEELED BIKES	1	4	37	68
BUSES	0	3	14	19
	0	0	73	66

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	4 8.15	16 8.15	136 9.45	332 9.00
PM PK 15 MIN	0 3.00	14 5.45	269 4.15	175 5.15
AM PK HOUR	4 7.30	39 8.00	440 9.00	1217 8.15
PM PK HOUR	0 3.00	36 3.00	1006 4.15	617 5.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	4	0	4
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	3	0	10	13
8-9	7	10	22	39
9-10	10	0	17	27
3-4	15	0	21	36
4-5	8	0	20	28
5-6	11	0	23	34
<b>TOTAL</b>	<b>54</b>	<b>10</b>	<b>113</b>	<b>177</b>

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
13	0	0	19	0
43	0	0	21	0
27	0	0	26	0
36	0	0	52	3
28	0	0	55	1
34	0	0	41	4
<b>181</b>	<b>0</b>	<b>0</b>	<b>214</b>	<b>8</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	7	258	0	265
8-9	15	409	0	424
9-10	20	420	0	440
3-4	36	955	0	991
4-5	47	926	0	973
5-6	46	906	0	952
<b>TOTAL</b>	<b>171</b>	<b>3874</b>	<b>0</b>	<b>4045</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	1005	10	1015
8-9	0	1156	10	1166
9-10	0	1160	17	1177
3-4	0	576	20	596
4-5	0	565	19	584
5-6	0	591	26	617
<b>TOTAL</b>	<b>0</b>	<b>5053</b>	<b>102</b>	<b>5155</b>

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
1280	0	0	0	0
1590	2	0	0	0
1617	1	0	0	0
1587	9	0	1	0
1557	0	0	2	0
1569	1	0	0	0
<b>9200</b>	<b>13</b>	<b>0</b>	<b>3</b>	<b>0</b>

City of Los Angeles  
 Department of Transportation  
**BICYCLE COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Flores Street		
<b>East/West:</b>	3rd Street		
<b>Day:</b>	Thursday	<b>Date:</b>	5/25/2023
<b>School Day:</b>	Yes	<b>District:</b>	Western
<b>Hours:</b>	7-10 AM, 3-6 PM	<b>Staff:</b>	CUI
		<b>Weather:</b>	CLEAR
		<b>I/S Code:</b>	0

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total	N-S
7-8	0	0	0	0	0
8-9	0	1	0	1	1
9-10	0	0	0	0	0
3-4	0	0	0	0	0
4-5	1	0	0	1	1
5-6	0	0	1	1	1
<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>3</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	2	0	2
8-9	0	0	0	0
9-10	1	3	0	4
3-4	0	3	0	3
4-5	0	4	0	4
5-6	0	1	0	1
<b>TOTAL</b>	<b>1</b>	<b>13</b>	<b>0</b>	<b>14</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total	E-W
7-8	0	4	0	4	6
8-9	0	4	0	4	4
9-10	0	2	1	3	7
3-4	0	2	0	2	5
4-5	0	1	0	1	5
5-6	0	5	0	5	6
<b>TOTAL</b>	<b>0</b>	<b>18</b>	<b>1</b>	<b>19</b>	<b>33</b>

**REMARKS (6 hour total):**

	NB	SB	EB	WB	TOTAL
- Female Riders	0	0	1	1	2
- No helmet riders	0	1	13	14	28
- Sidewalk Riding	0	1	9	8	18
- Wrong way riding	0	1	5	2	8

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: CUI

LADOT 2015 CMP

City of Los Angeles  
 Department of Transportation  
**PEDESTRIAN COUNT SUMMARY**

**STREET:**

<b>North/South:</b>	Flores Street				
<b>East/West:</b>	3rd Street				
<b>Day:</b>	Thursday	<b>Date:</b>	5/25/2023	<b>Weather:</b>	CLEAR
<b>School Day:</b>	YES	<b>District:</b>	Western	<b>I/S Code:</b>	0
<b>Hours:</b>	7-10 AM, 3-6 PM	<b>Staff:</b>	CUI		

**AM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	6	0	0	0	6
7:15-7:30	8	0	0	0	8
7:30-7:45	3	0	0	0	3
7:45-8:00	2	0	0	0	2
8:00-8:15	4	0	0	0	4
8:15-8:30	10	0	0	2	12
8:30-8:45	2	0	0	0	2
8:45-9:00	5	0	0	0	5
9:00-9:15	4	0	0	0	4
9:15-9:30	4	0	0	0	4
9:30-9:45	14	0	0	1	15
9:45-10:00	4	0	0	0	4

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7 - 8	19	0	0	0	19
8 - 9	21	0	0	2	23
9 - 10	26	0	0	1	27
<b>TOTAL</b>	<b>66</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>69</b>

**PM PEAK PERIOD**

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	10	0	0	4	14
3:15-3:30	15	0	1	0	16
3:30-3:45	17	0	0	4	21
3:45-4:00	13	0	0	1	14
4:00-4:15	15	0	0	0	15
4:15-4:30	16	0	2	0	18
4:30-4:45	11	0	0	0	11
4:45-5:00	14	0	0	0	14
5:00-5:15	14	0	0	0	14
5:15-5:30	10	0	0	1	11
5:30-5:45	11	0	0	0	11
5:45-6:00	10	0	0	0	10

Hours	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3 - 4	55	0	1	9	65
4 - 5	56	0	2	0	58
5 - 6	45	0	0	1	46
<b>TOTAL</b>	<b>156</b>	<b>0</b>	<b>3</b>	<b>10</b>	<b>169</b>

**REMARKS (6 hour total):**

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
0	0	0	0	0
10	0	0	0	10

N: North, S: South, E: East, W: West, I/S: Intersection

Source:

LADOT 2015 CMP

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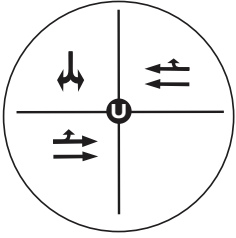
## APPENDIX E

### STUDY INTERSECTION GEOMETRICS AND TRAFFIC CONTROL CONDITIONS

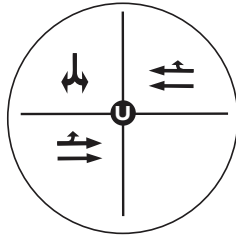
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## Appendix E - Study Intersection Geometrics and Traffic Control Conditions


#1) 3rd Street & Kings Road



#2) 3rd Street & Flores Street



### LANE CONFIGURATION

 Unsignalized Intersection

 Intersection Lane Geometry





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## APPENDIX F

### NCHRP REPORT 684: INTERNAL TRIP CAPTURE ESTIMATION TOOL WORKSHEETS

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NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	8339 W. 3rd Street Mixed-Use Project	Organization:	KOA Corporation		
Project Location:	8339 W. 3rd Street, Los Angeles	Performed By:	HM		
Scenario Description:	Proposed Project	Date:	15-May-23		
Analysis Year:	2027	Checked By:	RK		
Analysis Period:	AM Street Peak Hour	Date:	5/18/2023		

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips <sup>3</sup>		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	4,000	sf	9	5	4
Restaurant	931, 936	8,000	sf	190	98	92
Cinema/Entertainment				0		
Residential	221, Aff.	77	du	30	8	22
Hotel				0		
All Other Land Uses <sup>2</sup>				0		
				229	111	118

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized
Office						
Retail	1.78	5%	23%	1.78	5%	23%
Restaurant	1.78	5%	23%	1.78	5%	23%
Cinema/Entertainment						
Residential	1.78	5%	23%	1.78	5%	23%
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail	0		1	0	0	0
Restaurant	0	1		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	8	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	407	197	210
Internal Capture Percentage	5%	6%	5%
External Vehicle-Trips <sup>5</sup>	154	74	80
External Transit-Trips <sup>6</sup>	21	10	11
External Non-Motorized Trips <sup>6</sup>	88	43	45

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	11%	14%
Restaurant	5%	1%
Cinema/Entertainment	N/A	N/A
Residential	7%	21%
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

<b>Project Name:</b>	8339 W. 3rd Street Mixed-Use Project
<b>Analysis Period:</b>	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.78	5	9	1.78	4	7
Restaurant	1.78	98	174	1.78	92	164
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.78	8	14	1.78	22	39
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	2		1	0	1	0
Restaurant	51	23		0	7	5
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	8	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	40	0	0	0
Retail	0		87	0	0	0
Restaurant	0	1		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	2	35	0		0
Hotel	0	0	10	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	0	0	0	0	0	0
Retail	1	8	9	3	0	2
Restaurant	9	165	174	66	9	38
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	13	14	5	1	3
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	0	0	0	0	0	0
Retail	1	6	7	3	0	1
Restaurant	2	162	164	65	9	37
Cinema/Entertainment	0	0	0	0	0	0
Residential	8	31	39	12	2	7
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	0	0	0	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A  
<sup>2</sup>Person-Trips  
<sup>3</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator  
\*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	8339 W. 3rd Street Mixed-Use Project	Organization:	KOA Corporation		
Project Location:	8339 W. 3rd Street, Los Angeles	Performed By:	HM		
Scenario Description:	Proposed Project	Date:	15-May-23		
Analysis Year:	2027	Checked By:	RK		
Analysis Period:	PM Street Peak Hour	Date:	5/18/2023		

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips <sup>3</sup>		
	ITE LUCs <sup>1</sup>	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	4,000	sf	26	13	13
Restaurant	931, 936	8,000	sf	112	64	48
Cinema/Entertainment				0		
Residential	221, Aff.	77	du	30	18	12
Hotel				0		
All Other Land Uses <sup>2</sup>				0		
				168	95	73

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized	Veh. Occ. <sup>4</sup>	% Transit	% Non-Motorized
Office						
Retail	1.78	5%	23%	1.78	5%	23%
Restaurant	1.78	5%	23%	1.78	5%	23%
Cinema/Entertainment						
Residential	1.78	5%	23%	1.78	5%	23%
Hotel						
All Other Land Uses <sup>2</sup>						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		7	0	6	0
Restaurant	0	12		0	5	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	2	4	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	298	169	129
Internal Capture Percentage	24%	21%	28%
External Vehicle-Trips <sup>5</sup>	90	53	37
External Transit-Trips <sup>6</sup>	13	7	6
External Non-Motorized Trips <sup>6</sup>	52	31	21

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	61%	57%
Restaurant	10%	20%
Cinema/Entertainment	N/A	N/A
Residential	34%	29%
Hotel	N/A	N/A

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

<b>Project Name:</b>	8339 W. 3rd Street Mixed-Use Project
<b>Analysis Period:</b>	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.78	13	23	1.78	13	23
Restaurant	1.78	64	114	1.78	48	85
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.78	18	32	1.78	12	21
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		7	1	6	1
Restaurant	3	35		7	15	6
Cinema/Entertainment	0	0	0		0	0
Residential	1	9	4	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		2	2	0	1	0
Retail	0		33	0	15	0
Restaurant	0	12		0	5	0
Cinema/Entertainment	0	1	3		1	0
Residential	0	2	16	0		0
Hotel	0	0	6	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	0	0	0	0	0	0
Retail	14	9	23	4	0	2
Restaurant	11	103	114	41	6	24
Cinema/Entertainment	0	0	0	0	0	0
Residential	11	21	32	8	1	5
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles <sup>1</sup>	Transit <sup>2</sup>	Non-Motorized <sup>2</sup>
Office	0	0	0	0	0	0
Retail	13	10	23	4	1	2
Restaurant	17	68	85	27	4	16
Cinema/Entertainment	0	0	0	0	0	0
Residential	6	15	21	6	1	3
Hotel	0	0	0	0	0	0
All Other Land Uses <sup>3</sup>	0	0	0	0	0	0

<sup>1</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

<sup>2</sup>Person-Trips

<sup>3</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

\*Indicates computation that has been rounded to the nearest whole number.

Table 7.1a Adjusted Internal Trip Capture Rates for Trip Origins within a Multi-Use Development

Land Use Pairs		Weekday	
		AM Peak Hour	PM Peak Hour
From OFFICE	To Office	0.0%	0.0%
	To Retail	28.0%	20.0%
	To Restaurant	63.0%	4.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	1.0%	2.0%
	To Hotel	0.0%	0.0%
From RETAIL	To Office	29.0%	2.0%
	To Retail	0.0%	0.0%
	To Restaurant	13.0%	29.0%
	To Cinema/Entertainment	0.0%	4.0%
	To Residential	14.0%	26.0%
	To Hotel	0.0%	5.0%
From RESTAURANT	To Office	31.0%	3.0%
	To Retail	14.0%	41.0%
	To Restaurant	0.0%	0.0%
	To Cinema/Entertainment	0.0%	8.0%
	To Residential	4.0%	18.0%
	To Hotel	3.0%	7.0%
From CINEMA/ENTERTAINMENT	To Office	0.0%	2.0%
	To Retail	0.0%	21.0%
	To Restaurant	0.0%	31.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	8.0%
	To Hotel	0.0%	2.0%
From RESIDENTIAL	To Office	2.0%	4.0%
	To Retail	1.0%	42.0%
	To Restaurant	20.0%	21.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	0.0%
	To Hotel	0.0%	3.0%
From HOTEL	To Office	75.0%	0.0%
	To Retail	14.0%	16.0%
	To Restaurant	9.0%	68.0%
	To Cinema/Entertainment	0.0%	0.0%
	To Residential	0.0%	2.0%
	To Hotel	0.0%	0.0%

Table 7.2a Adjusted Internal Trip Capture Rates for Trip Destinations within a Multi-Use Development

Land Use Pairs		Weekday	
		AM Peak Hour	PM Peak Hour
To OFFICE	From Office	0.0%	0.0%
	From Retail	4.0%	31.0%
	From Restaurant	14.0%	30.0%
	From Cinema/Entertainment	0.0%	6.0%
	From Residential	3.0%	57.0%
	From Hotel	3.0%	0.0%
To RETAIL	From Office	32.0%	8.0%
	From Retail	0.0%	0.0%
	From Restaurant	8.0%	50.0%
	From Cinema/Entertainment	0.0%	4.0%
	From Residential	17.0%	10.0%
	From Hotel	4.0%	2.0%
To RESTAURANT	From Office	23.0%	2.0%
	From Retail	50.0%	29.0%
	From Restaurant	0.0%	0.0%
	From Cinema/Entertainment	0.0%	3.0%
	From Residential	20.0%	14.0%
	From Hotel	6.0%	5.0%
To CINEMA/ENTERTAINMENT	From Office	0.0%	1.0%
	From Retail	0.0%	26.0%
	From Restaurant	0.0%	32.0%
	From Cinema/Entertainment	0.0%	0.0%
	From Residential	0.0%	0.0%
	From Hotel	0.0%	0.0%
To RESIDENTIAL	From Office	0.0%	4.0%
	From Retail	2.0%	46.0%
	From Restaurant	5.0%	16.0%
	From Cinema/Entertainment	0.0%	4.0%
	From Residential	0.0%	0.0%
	From Hotel	0.0%	0.0%
To HOTEL	From Office	0.0%	0.0%
	From Retail	0.0%	17.0%
	From Restaurant	4.0%	71.0%
	From Cinema/Entertainment	0.0%	1.0%
	From Residential	0.0%	12.0%
	From Hotel	0.0%	0.0%

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## APPENDIX G

### SYNCHRO DELAY AND QUEUE CALCULATION WORKSHEETS

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Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	9	428	1220	25	7	43
Future Vol, veh/h	9	428	1220	25	7	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	465	1326	27	8	47

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1353	0	-	0	1593 677
Stage 1	-	-	-	-	1340 -
Stage 2	-	-	-	-	253 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	504	-	-	-	98 395
Stage 1	-	-	-	-	209 -
Stage 2	-	-	-	-	766 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	504	-	-	-	95 395
Mov Cap-2 Maneuver	-	-	-	-	95 -
Stage 1	-	-	-	-	203 -
Stage 2	-	-	-	-	766 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	21.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	504	-	-	-	274
HCM Lane V/C Ratio	0.019	-	-	-	0.198
HCM Control Delay (s)	12.3	0.2	-	-	21.4
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	13	409	1207	10	7	17
Future Vol, veh/h	13	409	1207	10	7	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	445	1312	11	8	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1323	0	-	0	1569 662
Stage 1	-	-	-	-	1318 -
Stage 2	-	-	-	-	251 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	518	-	-	-	101 404
Stage 1	-	-	-	-	214 -
Stage 2	-	-	-	-	768 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	518	-	-	-	97 404
Mov Cap-2 Maneuver	-	-	-	-	97 -
Stage 1	-	-	-	-	206 -
Stage 2	-	-	-	-	768 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	24.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	518	-	-	-	210
HCM Lane V/C Ratio	0.027	-	-	-	0.124
HCM Control Delay (s)	12.1	0.2	-	-	24.6
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	38	964	572	25	12	39
Future Vol, veh/h	38	964	572	25	12	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	1048	622	27	13	42

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	649	0	-	0	1242 325
Stage 1	-	-	-	-	636 -
Stage 2	-	-	-	-	606 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	933	-	-	-	167 671
Stage 1	-	-	-	-	489 -
Stage 2	-	-	-	-	507 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	933	-	-	-	149 671
Mov Cap-2 Maneuver	-	-	-	-	149 -
Stage 1	-	-	-	-	438 -
Stage 2	-	-	-	-	507 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	933	-	-	-	368
HCM Lane V/C Ratio	0.044	-	-	-	0.151
HCM Control Delay (s)	9	0.4	-	-	16.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	36	955	576	20	15	21
Future Vol, veh/h	36	955	576	20	15	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	1038	626	22	16	23

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	648	0	-	0	1234 324
Stage 1	-	-	-	-	637 -
Stage 2	-	-	-	-	597 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	934	-	-	-	169 672
Stage 1	-	-	-	-	489 -
Stage 2	-	-	-	-	513 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	934	-	-	-	152 672
Mov Cap-2 Maneuver	-	-	-	-	152 -
Stage 1	-	-	-	-	441 -
Stage 2	-	-	-	-	513 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	20.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	934	-	-	-	277
HCM Lane V/C Ratio	0.042	-	-	-	0.141
HCM Control Delay (s)	9	0.4	-	-	20.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	22	432	1199	25	10	81
Future Vol, veh/h	22	432	1199	25	10	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	470	1303	27	11	88

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1330	0	-	0	1600 665
Stage 1	-	-	-	-	1317 -
Stage 2	-	-	-	-	283 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	515	-	-	-	97 403
Stage 1	-	-	-	-	215 -
Stage 2	-	-	-	-	740 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	515	-	-	-	91 403
Mov Cap-2 Maneuver	-	-	-	-	91 -
Stage 1	-	-	-	-	201 -
Stage 2	-	-	-	-	740 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	23.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	515	-	-	-	293
HCM Lane V/C Ratio	0.046	-	-	-	0.338
HCM Control Delay (s)	12.3	0.4	-	-	23.4
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.4

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	25	404	1183	50	30	20
Future Vol, veh/h	25	404	1183	50	30	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	439	1286	54	33	22

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1340	0	-	0	1587 670
Stage 1	-	-	-	-	1313 -
Stage 2	-	-	-	-	274 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	510	-	-	-	99 399
Stage 1	-	-	-	-	216 -
Stage 2	-	-	-	-	747 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	510	-	-	-	92 399
Mov Cap-2 Maneuver	-	-	-	-	92 -
Stage 1	-	-	-	-	201 -
Stage 2	-	-	-	-	747 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	49.6
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	510	-	-	-	133
HCM Lane V/C Ratio	0.053	-	-	-	0.409
HCM Control Delay (s)	12.5	0.4	-	-	49.6
HCM Lane LOS	B	A	-	-	E
HCM 95th %tile Q(veh)	0.2	-	-	-	1.8

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	50	967	569	25	13	51
Future Vol, veh/h	50	967	569	25	13	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	1051	618	27	14	55

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	645	0	-	0	1266 323
Stage 1	-	-	-	-	632 -
Stage 2	-	-	-	-	634 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	936	-	-	-	161 673
Stage 1	-	-	-	-	492 -
Stage 2	-	-	-	-	491 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	936	-	-	-	139 673
Mov Cap-2 Maneuver	-	-	-	-	139 -
Stage 1	-	-	-	-	424 -
Stage 2	-	-	-	-	491 -

Approach	EB	WB	SB
HCM Control Delay, s	1	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	936	-	-	-	378
HCM Lane V/C Ratio	0.058	-	-	-	0.184
HCM Control Delay (s)	9.1	0.6	-	-	16.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	48	947	571	40	30	23
Future Vol, veh/h	48	947	571	40	30	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	1029	621	43	33	25

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	664	0	-	0	1262 332
Stage 1	-	-	-	-	643 -
Stage 2	-	-	-	-	619 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	921	-	-	-	162 664
Stage 1	-	-	-	-	485 -
Stage 2	-	-	-	-	499 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	921	-	-	-	141 664
Mov Cap-2 Maneuver	-	-	-	-	141 -
Stage 1	-	-	-	-	421 -
Stage 2	-	-	-	-	499 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	27.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	921	-	-	-	214
HCM Lane V/C Ratio	0.057	-	-	-	0.269
HCM Control Delay (s)	9.1	0.5	-	-	27.9
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	1



Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	9	479	1291	26	7	45
Future Vol, veh/h	9	479	1291	26	7	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	521	1403	28	8	49

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1431	0	-	0	1698 716
Stage 1	-	-	-	-	1417 -
Stage 2	-	-	-	-	281 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	471	-	-	-	83 373
Stage 1	-	-	-	-	190 -
Stage 2	-	-	-	-	741 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	471	-	-	-	81 373
Mov Cap-2 Maneuver	-	-	-	-	81 -
Stage 1	-	-	-	-	184 -
Stage 2	-	-	-	-	741 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	23.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	471	-	-	-	251
HCM Lane V/C Ratio	0.021	-	-	-	0.225
HCM Control Delay (s)	12.8	0.2	-	-	23.5
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	14	460	1277	10	7	18
Future Vol, veh/h	14	460	1277	10	7	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	500	1388	11	8	20

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1399	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	484	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	484	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	27.2
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	484	-	-	-	189
HCM Lane V/C Ratio	0.031	-	-	-	0.144
HCM Control Delay (s)	12.7	0.3	-	-	27.2
HCM Lane LOS	B	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	40	1032	635	26	12	41
Future Vol, veh/h	40	1032	635	26	12	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	1122	690	28	13	45

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	718	0	-	0	1351 359
Stage 1	-	-	-	-	704 -
Stage 2	-	-	-	-	647 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	879	-	-	-	141 638
Stage 1	-	-	-	-	452 -
Stage 2	-	-	-	-	483 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	879	-	-	-	123 638
Mov Cap-2 Maneuver	-	-	-	-	123 -
Stage 1	-	-	-	-	393 -
Stage 2	-	-	-	-	483 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	879	-	-	-	328
HCM Lane V/C Ratio	0.049	-	-	-	0.176
HCM Control Delay (s)	9.3	0.6	-	-	18.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	37	1023	639	21	16	22
Future Vol, veh/h	37	1023	639	21	16	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	1112	695	23	17	24

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	718	0	-	0	1343 359
Stage 1	-	-	-	-	707 -
Stage 2	-	-	-	-	636 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	879	-	-	-	143 638
Stage 1	-	-	-	-	450 -
Stage 2	-	-	-	-	489 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	879	-	-	-	126 638
Mov Cap-2 Maneuver	-	-	-	-	126 -
Stage 1	-	-	-	-	396 -
Stage 2	-	-	-	-	489 -

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	23.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	879	-	-	-	235
HCM Lane V/C Ratio	0.046	-	-	-	0.176
HCM Control Delay (s)	9.3	0.5	-	-	23.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

HCM 6th TWSC  
1: 3rd Street & Kings Road

07/12/2023

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	22	483	1270	26	10	83
Future Vol, veh/h	22	483	1270	26	10	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	525	1380	28	11	90

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1408	0	-	0	1705 704
Stage 1	-	-	-	-	1394 -
Stage 2	-	-	-	-	311 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	481	-	-	-	82 379
Stage 1	-	-	-	-	195 -
Stage 2	-	-	-	-	716 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	481	-	-	-	76 379
Mov Cap-2 Maneuver	-	-	-	-	76 -
Stage 1	-	-	-	-	181 -
Stage 2	-	-	-	-	716 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	26.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	481	-	-	-	265
HCM Lane V/C Ratio	0.05	-	-	-	0.381
HCM Control Delay (s)	12.9	0.4	-	-	26.7
HCM Lane LOS	B	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	1.7

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	26	455	1253	50	30	21
Future Vol, veh/h	26	455	1253	50	30	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	495	1362	54	33	23

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1416	0	-	0	1693 708
Stage 1	-	-	-	-	1389 -
Stage 2	-	-	-	-	304 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	477	-	-	-	84 377
Stage 1	-	-	-	-	196 -
Stage 2	-	-	-	-	722 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	477	-	-	-	77 377
Mov Cap-2 Maneuver	-	-	-	-	77 -
Stage 1	-	-	-	-	180 -
Stage 2	-	-	-	-	722 -

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	62.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	477	-	-	-	115
HCM Lane V/C Ratio	0.059	-	-	-	0.482
HCM Control Delay (s)	13	0.5	-	-	62.5
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	2.2

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	52	1035	632	26	13	53
Future Vol, veh/h	52	1035	632	26	13	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	1125	687	28	14	58

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	715	0	-	0	1378 358
Stage 1	-	-	-	-	701 -
Stage 2	-	-	-	-	677 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	881	-	-	-	136 638
Stage 1	-	-	-	-	453 -
Stage 2	-	-	-	-	466 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	881	-	-	-	112 638
Mov Cap-2 Maneuver	-	-	-	-	112 -
Stage 1	-	-	-	-	375 -
Stage 2	-	-	-	-	466 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	881	-	-	-	331
HCM Lane V/C Ratio	0.064	-	-	-	0.217
HCM Control Delay (s)	9.4	0.7	-	-	18.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	49	1015	634	41	31	24
Future Vol, veh/h	49	1015	634	41	31	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	1103	689	45	34	26

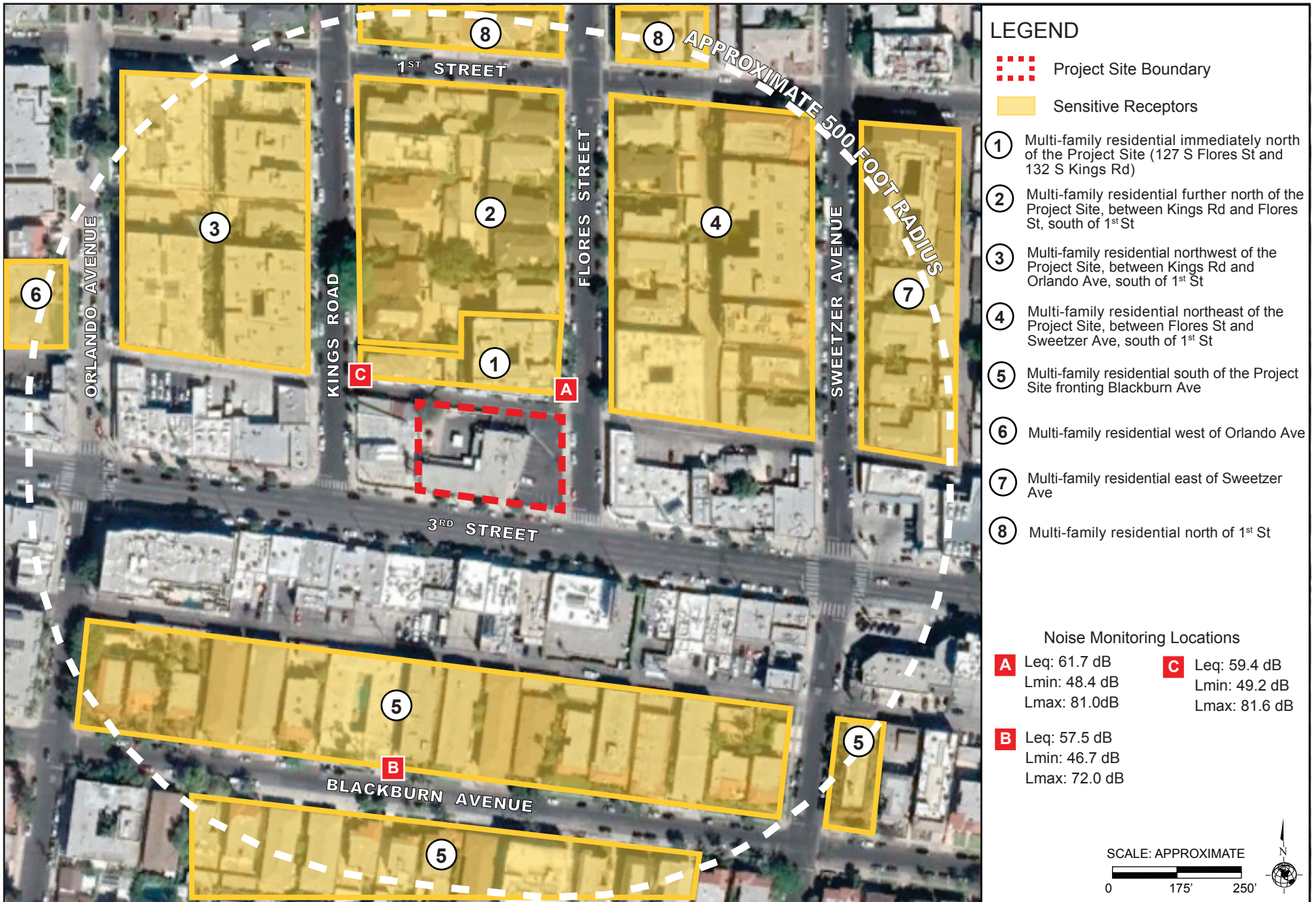
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	734	0	-	0	1370 367
Stage 1	-	-	-	-	712 -
Stage 2	-	-	-	-	658 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	867	-	-	-	137 630
Stage 1	-	-	-	-	447 -
Stage 2	-	-	-	-	477 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	867	-	-	-	115 630
Mov Cap-2 Maneuver	-	-	-	-	115 -
Stage 1	-	-	-	-	376 -
Stage 2	-	-	-	-	477 -

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	34.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	867	-	-	-	179
HCM Lane V/C Ratio	0.061	-	-	-	0.334
HCM Control Delay (s)	9.4	0.7	-	-	34.9
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	1.4



**Exhibit B, Attachment 3: Noise Monitoring Data  
and Calculation Worksheets  
Case No. CPC-2023-4573-DB-CU-HCA**



Source: Google Earth, Aerial View, 2020.

Figure 1  
Noise Monitoring and Sensitive Receptor Location Map

# Measurement Report

## Report Summary

Meter's File Name	831_Data.140.s	Computer's File Name	831C_10304-20230626 113224-831_Data.140.ldbin
Meter	831C 10304		
Firmware	04.5.1R0		
User	Cole Scherer and Adrianna Gjonaj	Location A:	On the west side of Flores Street, north of the public alleyway
Job Description	3rd and Flores		
Noise Sources:	Vehicle traffic, trash trucks, pedestrians		
Start Time	2023-06-26 11:32:24	Duration	0:15:00.0
End Time	2023-06-26 11:47:24	Run Time	0:15:00.0
		Pause Time	0:00:00.0

## Results

### Overall Metrics

LA <sub>eq</sub>	61.7 dB		
LAE	91.2 dB	SEA	--- dB
EA	146.5 μPa²h	LAFTM5	68.3 dB
LZ <sub>peak</sub>	110.6 dB	2023-06-26 11:33:23	
LAS <sub>max</sub>	81.0 dB	2023-06-26 11:34:59	
LAS <sub>min</sub>	48.4 dB	2023-06-26 11:44:47	
LA <sub>eq</sub>	61.7 dB		
LC <sub>eq</sub>	70.9 dB	LC <sub>eq</sub> - LA <sub>eq</sub>	9.2 dB
LAI <sub>eq</sub>	65.3 dB	LAI <sub>eq</sub> - LA <sub>eq</sub>	3.6 dB



### Exceedances

	Count	Duration
LAS > 65.0 dB	11	0:00:54.9
LAS > 85.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 135.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 137.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 140.0 dB	0	0:00:00.0

### Community Noise

LDN	LDay	LNight	
61.7 dB	61.7 dB	0.0 dB	
LDEN	LDay	LEve	LNight
61.7 dB	61.7 dB	--- dB	--- dB

### Any Data

	A	C	Z			
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L <sub>eq</sub>	61.7 dB		70.9 dB		82.8 dB	
LS <sub>(max)</sub>	81.0 dB	2023-06-26 11:34:59	89.6 dB	2023-06-26 11:34:59	97.4 dB	2023-06-26 11:46:32
LF <sub>(max)</sub>	82.7 dB	2023-06-26 11:33:24	91.1 dB	2023-06-26 11:34:59	102.0 dB	2023-06-26 11:33:23
LI <sub>(max)</sub>	84.3 dB	2023-06-26 11:33:24	93.8 dB	2023-06-26 11:33:18	105.9 dB	2023-06-26 11:33:23
LS <sub>(min)</sub>	48.4 dB	2023-06-26 11:44:47	61.2 dB	2023-06-26 11:45:40	64.9 dB	2023-06-26 11:45:38
LF <sub>(min)</sub>	46.8 dB	2023-06-26 11:32:38	59.5 dB	2023-06-26 11:32:33	62.7 dB	2023-06-26 11:45:35
LI <sub>(min)</sub>	48.3 dB	2023-06-26 11:44:46	61.9 dB	2023-06-26 11:45:40	65.9 dB	2023-06-26 11:45:38
L <sub>Peak(max)</sub>	99.9 dB	2023-06-26 11:33:05	102.3 dB	2023-06-26 11:33:23	110.6 dB	2023-06-26 11:33:23

### Overloads

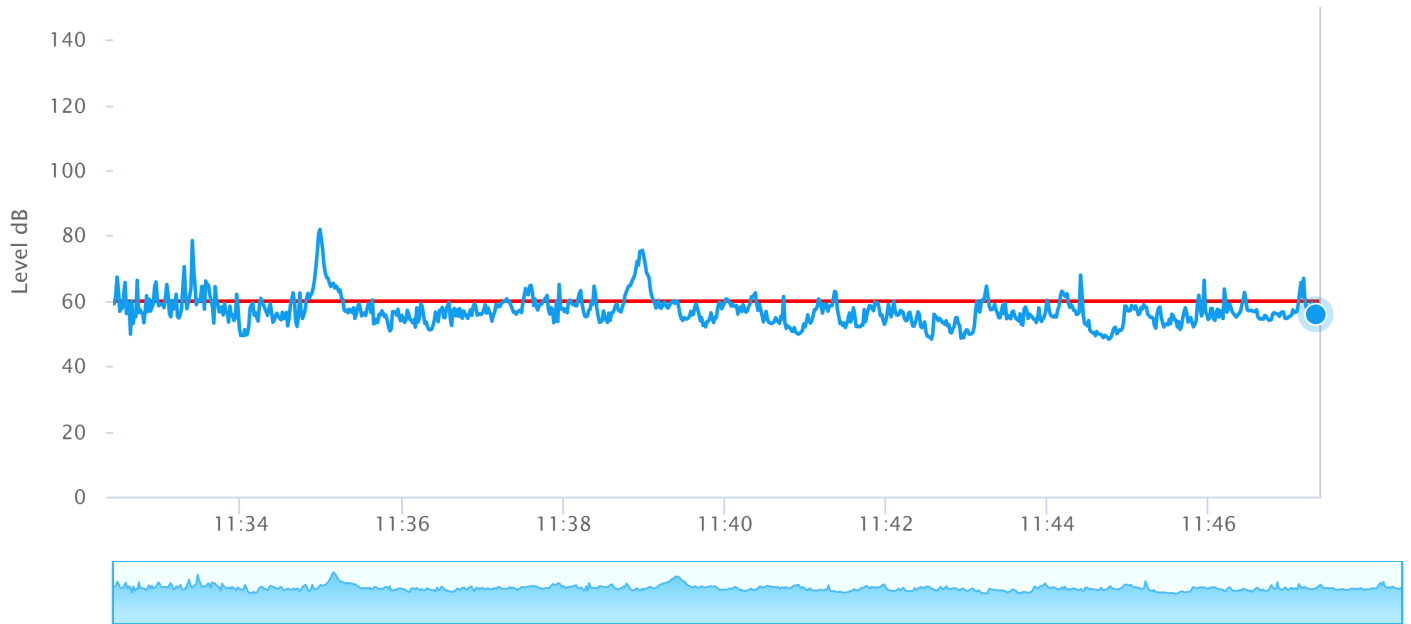
Count	Duration
0	0:00:00.0

### Statistics

LAS 5.0	64.6 dB
LAS 10.0	62.1 dB
LAS 33.3	58.2 dB
LAS 50.0	56.8 dB
LAS 66.6	55.6 dB
LAS 90.0	52.8 dB

# Time History

Reset Zoom



# Measurement Report

## Report Summary

Meter's File Name	831_Data.142.s	Computer's File Name	831C_10304-20230626 120859-831_Data.142.ldbin
Meter	831C 10304		
Firmware	04.5.1R0		
User	Cole Scherer and Adrianna Gjonaj	Location B:	On the north side of Blackburn Avenue
Job Description	3rd and Flores		
Noise Sources:	Vehicle traffic, construction, pedestrians		
Start Time	2023-06-26 12:08:59	Duration	0:15:00.0
End Time	2023-06-26 12:23:59	Run Time	0:15:00.0
		Pause Time	0:00:00.0

## Results

### Overall Metrics

L <sub>Aeq</sub>	57.5 dB		
L <sub>AE</sub>	87.0 dB	SEA	--- dB
EA	55.7 μPa²h	LAFTM5	65.1 dB
L <sub>Zpeak</sub>	99.8 dB	2023-06-26 12:10:53	
L <sub>ASmax</sub>	72.0 dB	2023-06-26 12:09:29	
L <sub>ASmin</sub>	46.7 dB	2023-06-26 12:12:20	
L <sub>Aeq</sub>	57.5 dB		
L <sub>Ceq</sub>	66.2 dB	L <sub>Ceq</sub> - L <sub>Aeq</sub>	8.8 dB
L <sub>AIeq</sub>	63.4 dB	L <sub>AIeq</sub> - L <sub>Aeq</sub>	5.9 dB

### Exceedances

	Count	Duration
L <sub>AS</sub> > 65.0 dB	16	0:00:41.8
L <sub>AS</sub> > 85.0 dB	0	0:00:00.0
L <sub>Zpeak</sub> > 135.0 dB	0	0:00:00.0
L <sub>Zpeak</sub> > 137.0 dB	0	0:00:00.0
L <sub>Zpeak</sub> > 140.0 dB	0	0:00:00.0

### Community Noise

LDN	LDay	LNight	
57.5 dB	57.5 dB	0.0 dB	
LDEN	LDay	LEve	LNight
57.5 dB	57.5 dB	--- dB	--- dB

### Any Data

	A	C	Z			
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L <sub>eq</sub>	57.5 dB		66.2 dB		75.1 dB	
L <sub>S(max)</sub>	72.0 dB	2023-06-26 12:09:29	80.7 dB	2023-06-26 12:09:10	87.7 dB	2023-06-26 12:17:52
L <sub>F(max)</sub>	77.9 dB	2023-06-26 12:09:29	84.6 dB	2023-06-26 12:21:21	92.2 dB	2023-06-26 12:17:52
L <sub>I(max)</sub>	81.7 dB	2023-06-26 12:09:29	87.9 dB	2023-06-26 12:21:21	94.2 dB	2023-06-26 12:17:52
L <sub>S(min)</sub>	46.7 dB	2023-06-26 12:12:20	56.8 dB	2023-06-26 12:23:04	59.5 dB	2023-06-26 12:12:19
L <sub>F(min)</sub>	44.9 dB	2023-06-26 12:09:55	55.0 dB	2023-06-26 12:13:43	57.6 dB	2023-06-26 12:22:45
L <sub>I(min)</sub>	46.8 dB	2023-06-26 12:15:14	57.2 dB	2023-06-26 12:23:04	60.6 dB	2023-06-26 12:22:48
L <sub>Peak(max)</sub>	96.0 dB	2023-06-26 12:09:29	94.7 dB	2023-06-26 12:21:21	99.8 dB	2023-06-26 12:10:53

### Overloads

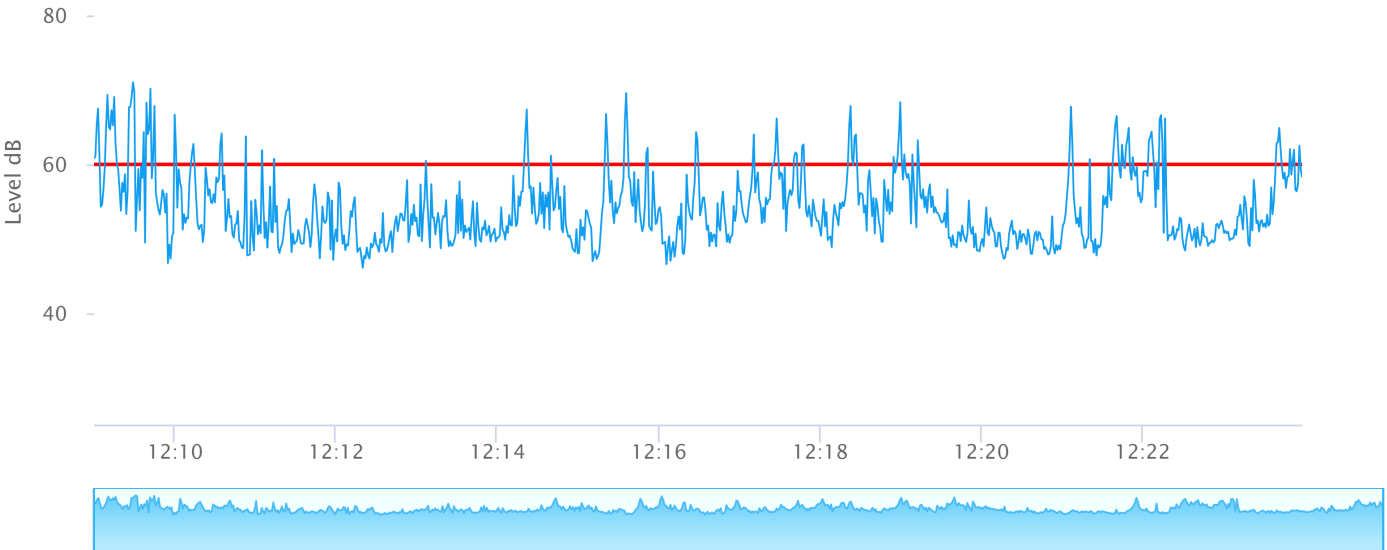
Count	Duration
0	0:00:00.0

### Statistics

L <sub>AS</sub> 5.0	63.7 dB
L <sub>AS</sub> 10.0	61.2 dB
L <sub>AS</sub> 33.3	55.5 dB
L <sub>AS</sub> 50.0	53.4 dB
L <sub>AS</sub> 66.6	51.6 dB
L <sub>AS</sub> 90.0	49.5 dB



# Time History



# Measurement Report

## Report Summary

Meter's File Name	831_Data.141.s	Computer's File Name	831C_10304-20230626 114839-831_Data.141.ldbin
Meter	831C 10304		
Firmware	04.5.1R0		
User	Cole Scherer and Adrianna Gjonaj	Location C:	On the east side of Kings Road, north of the public alleyway
Job Description	3rd and Flores		
Noise Sources:	Vehicle traffic, moving truck/movers, pedestrians		
Start Time	2023-06-26 11:48:39	Duration	0:15:00.0
End Time	2023-06-26 12:03:39	Run Time	0:15:00.0
		Pause Time	0:00:00.0

## Results

### Overall Metrics

LA <sub>eq</sub>	59.4 dB		
LAE	89.0 dB	SEA	--- dB
EA	87.3 μPa²h	LAFTM5	68.2 dB
LZ <sub>peak</sub>	105.6 dB	2023-06-26 12:01:17	
LAS <sub>max</sub>	81.6 dB	2023-06-26 11:55:23	
LAS <sub>min</sub>	49.2 dB	2023-06-26 11:59:52	
LA <sub>eq</sub>	59.4 dB		
LC <sub>eq</sub>	69.0 dB	LC <sub>eq</sub> - LA <sub>eq</sub>	9.6 dB
LAI <sub>eq</sub>	65.8 dB	LAI <sub>eq</sub> - LA <sub>eq</sub>	6.4 dB

### Exceedances

	Count	Duration
LAS > 65.0 dB	10	0:00:25.8
LAS > 85.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 135.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 137.0 dB	0	0:00:00.0
LZ <sub>peak</sub> > 140.0 dB	0	0:00:00.0

### Community Noise

LDN	LDay	LNight	
59.4 dB	59.4 dB	0.0 dB	
LDEN	LDay	LEve	LNight
59.4 dB	59.4 dB	--- dB	--- dB

### Any Data

	A	C	Z			
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L <sub>eq</sub>	59.4 dB		69.0 dB		80.4 dB	
LS <sub>(max)</sub>	81.6 dB	2023-06-26 11:55:23	82.6 dB	2023-06-26 11:55:23	97.0 dB	2023-06-26 12:01:17
LF <sub>(max)</sub>	87.8 dB	2023-06-26 11:55:23	88.7 dB	2023-06-26 11:55:23	101.5 dB	2023-06-26 12:01:17
LI <sub>(max)</sub>	90.6 dB	2023-06-26 11:55:23	91.9 dB	2023-06-26 11:51:41	103.9 dB	2023-06-26 12:01:17
LS <sub>(min)</sub>	49.2 dB	2023-06-26 11:59:52	63.3 dB	2023-06-26 12:03:37	66.2 dB	2023-06-26 11:52:56
LF <sub>(min)</sub>	48.1 dB	2023-06-26 11:59:49	61.3 dB	2023-06-26 12:03:37	63.9 dB	2023-06-26 11:52:44
LI <sub>(min)</sub>	49.4 dB	2023-06-26 11:59:52	63.9 dB	2023-06-26 12:03:37	66.8 dB	2023-06-26 11:52:56
L <sub>Peak(max)</sub>	100.7 dB	2023-06-26 11:55:23	103.4 dB	2023-06-26 11:55:22	105.6 dB	2023-06-26 12:01:17

### Overloads

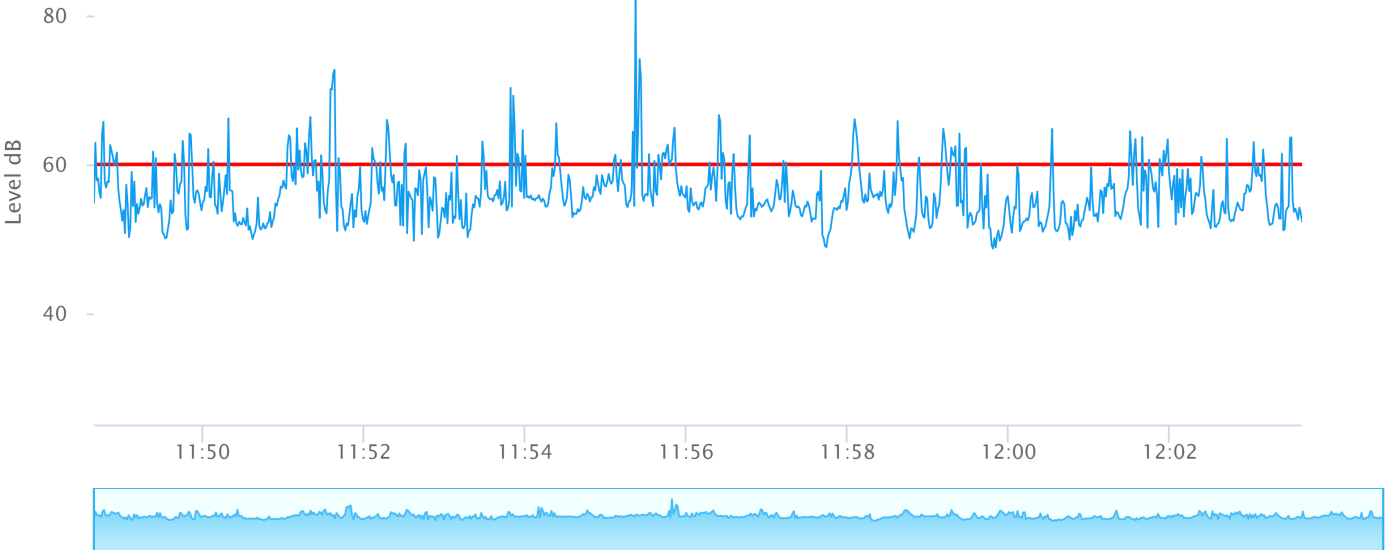
Count	Duration
0	0:00:00.0

### Statistics

LAS 5.0	62.7 dB
LAS 10.0	61.1 dB
LAS 33.3	57.3 dB
LAS 50.0	55.7 dB
LAS 66.6	54.5 dB
LAS 90.0	52.4 dB



# Time History





Construction Noise Calculation Worksheets

Report date: 6/28/2023  
 Project: 3rd and Flores  
 Phase: Grading

RECEPTOR #1 (Residential immediately north of Project Site; 127 S Flores St and 132 S Kings Rd)												
		Ambient/Baseline (dBA)										
Description	Land Use	Daytime										
Multi-family immediately north of the Project Site	Residential	61.7										
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Grader	No	40	85	85	25	75	0	81.5	77.5	15	66.5	62.5
Dozer	No	40	85	82	25	75	0	78.5	74.5	15	63.5	59.5
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>79.3</b>			<b>64.3</b>		
							<b>Noise Leve Above Ambient</b>			<b>17.6</b>		
							<b>17.6</b>			<b>Noise Leve Above Ambient</b>		
							<b>2.6</b>			<b>2.6</b>		

RECEPTOR #2 (Residences further north of the Project Site; between Kings Rd and Flores St)												
		Ambient/Baseline (dBA)										
Description	Land Use	Daytime										
Multi-family residential further north of Project Site, between Kings Rd and Flores St.	Residential	61.7										
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Grader	No	40	85	85	80	130	10	66.7	62.7	25	51.7	47.7
Dozer	No	40	85	82	80	130	10	63.7	59.7	25	48.7	44.7
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>64.5</b>			<b>49.5</b>		
							<b>Noise Leve Above Ambient</b>			<b>2.8</b>		
							<b>2.8</b>			<b>Noise Leve Above Ambient</b>		
							<b>-12.2</b>			<b>-12.2</b>		

RECEPTOR #3 (Residential northwest of Project Site, between Kings Rd and Orland Ave)												
		Ambient/Baseline (dBA)										
Description	Land Use	Daytime										
Multi-family residential northwest of Project Site, between Kings Rd and Orlando Ave.	Residential	59.4										
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Grader	No	40	85	85	160	250	10	61.0	57.0	25	46.0	42.0
Dozer	No	40	85	82	160	250	10	58.0	54.0	25	43.0	39.0
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>58.8</b>			<b>43.8</b>		
							<b>Noise Leve Above Ambient</b>			<b>-0.6</b>		
							<b>-0.6</b>			<b>Noise Leve Above Ambient</b>		
							<b>-15.6</b>			<b>-15.6</b>		

RECEPTOR #4 (Residential northeast of Project Site, between Flores St and Sweetzer Ave)												
		Ambient/Baseline (dBA)										
Description	Land Use	Daytime										
Multi-family residential northeast of Project Site, between Flores St and Orlando Ave	Residential	61.7										
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Grader	No	40	85	85	65	155	0	75.2	71.2	15	60.2	56.2
Dozer	No	40	85	82	65	155	0	72.2	68.2	15	57.2	53.2
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>73.0</b>			<b>58.0</b>		
							<b>Noise Leve Above Ambient</b>			<b>11.3</b>		
							<b>11.3</b>			<b>Noise Leve Above Ambient</b>		
							<b>-3.7</b>			<b>-3.7</b>		

Construction Noise Calculation Worksheets

RECEPTOR #5 (Residential south of Project Site, fronting Blackburn Ave)													
Description		Ambient/Baseline (dBA)											
Land Use		Daytime											
Multi-family residential south of the Project Site fronting Blackburn Avenue		Residential	57.5										
Equipment							Without Project Design Fetures			With Project Design Features			
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)		
Grader	No	40	85	85	215	265	10	*Lmax	Leq	10	*Lmax	Leq	
Dozer	No	40	85	82	215	265	10	60.5	56.5	10	60.5	56.5	
							10	57.5	53.5	10	57.5	53.5	
							<b>Construction Noise Level (dBA Leq)</b>		<b>58.3</b>	<b>Results</b>		<b>58.3</b>	
							<b>Noise Leve Above Ambient</b>		<b>0.8</b>	<b>Noise Leve Above Ambient</b>		<b>0.8</b>	

RECEPTOR #6 (Residential west of Orlando Ave)													
Description		Ambient/Baseline (dBA)											
Land Use		Daytime											
Multi-family residential west of Orlando Avenue		Residential	59.4										
Equipment							Without Project Design Fetures			With Project Design Features			
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)		
Grader	No	40	85	85	480	530	10	*Lmax	Leq	10	*Lmax	Leq	
Dozer	No	40	85	82	480	530	10	54.5	50.5	10	54.5	50.5	
							10	51.5	47.5	10	51.5	47.5	
							<b>Construction Noise Level (dBA Leq)</b>		<b>52.3</b>	<b>Results</b>		<b>52.3</b>	
							<b>Noise Leve Above Ambient</b>		<b>-7.1</b>	<b>Noise Leve Above Ambient</b>		<b>-7.1</b>	

RECEPTOR #7 (Residential east of Sweetzer Ave)													
Description		Ambient/Baseline (dBA)											
Land Use		Daytime											
Multi-family residential east of Sweetzer Avenue		Residential	61.7										
Equipment							Without Project Design Fetures			With Project Design Features			
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)		
Grader	No	40	85	85	390	480	10	*Lmax	Leq	10	*Lmax	Leq	
Dozer	No	40	85	82	390	480	10	55.4	51.4	10	55.4	51.4	
							10	52.4	48.4	10	52.4	48.4	
							<b>Construction Noise Level (dBA Leq)</b>		<b>53.1</b>	<b>Results</b>		<b>53.1</b>	
							<b>Noise Leve Above Ambient</b>		<b>-8.6</b>	<b>Noise Leve Above Ambient</b>		<b>-8.6</b>	

RECEPTOR #8 (Residential north of 1st Street)													
Description		Ambient/Baseline (dBA)											
Land Use		Daytime											
Multi-family residential north of 1st Street		Residential	61.7										
Equipment							Without Project Design Fetures			With Project Design Features			
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)		
Grader	No	40	85	85	460	510	10	*Lmax	Leq	25	*Lmax	Leq	
Dozer	No	40	85	82	460	510	10	54.8	50.8	25	39.8	35.8	
							10	51.8	47.8	25	36.8	32.8	
							<b>Construction Noise Level (dBA Leq)</b>		<b>52.6</b>	<b>Results</b>		<b>37.6</b>	
							<b>Noise Leve Above Ambient</b>		<b>-9.1</b>	<b>Noise Leve Above Ambient</b>		<b>-24.1</b>	

**Notes:**

1. Daytime noise levels are based on presumed ambient noise levels per LAMC 111.03.
2. An attenuation factor of 10 dBA was applied for sensitive receptors where buildings separate the Project Site and the associated sensitive receptor.
3. Calculations based on the loudest two pieces of heavy construction equipment specific to each phase.

Source: Roadway Construction Noise Model (RCNM), Version 1.1

Construction Noise Calculation Worksheets

Report date: 6/28/2023  
 Project: 3rd and Flores  
 Phase: Building Construction

RECEPTOR #1 (Residential immediately north of Project Site; 127 S Flores St and 132 S Kings Rd)												
Description		Ambient/Baseline (dBA)										
		Land Use	Daytime									
Multi-family immediately north of the Project Site		Residential	61.7									
Equipment												
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Without Project Design Fetures			With Project Design Features		
							Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
Roller	No	20	85	80	25	75	0	*Lmax	Leq	15	*Lmax	Leq
Generator	No	50	82	81	25	75	0	76.5	69.5	15	61.5	54.5
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							75.7			60.7		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							14.0			-1.0		

RECEPTOR #2 (Residences further north of the Project Site; between Kings Rd and Flores St)												
Description		Ambient/Baseline (dBA)										
		Land Use	Daytime									
Multi-family residential further north of Project Site, between Kings Rd and Flores St.		Residential	61.7									
Equipment												
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Without Project Design Fetures			With Project Design Features		
							Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
Roller	No	20	85	80	80	130	10	*Lmax	Leq	25	*Lmax	Leq
Generator	No	50	82	81	80	130	10	61.7	54.7	25	46.7	39.7
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							60.9			45.9		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							-0.8			-15.8		

RECEPTOR #3 (Residential northwest of Project Site, between Kings Rd and Orland Ave)												
Description		Ambient/Baseline (dBA)										
		Land Use	Daytime									
Multi-family residential northwest of Project Site, between Kings Rd and Orlando Ave.		Residential	59.4									
Equipment												
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Without Project Design Fetures			With Project Design Features		
							Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
Roller	No	20	85	80	160	250	10	*Lmax	Leq	25	*Lmax	Leq
Generator	No	50	82	81	160	250	10	56.0	49.0	25	41.0	34.0
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							55.2			40.2		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							-4.2			-19.2		

RECEPTOR #4 (Residential northeast of Project Site, between Flores St and Sweetzer Ave)												
Description		Ambient/Baseline (dBA)										
		Land Use	Daytime									
Multi-family residential northeast of Project Site, between Flores St and Orlando Ave		Residential	61.7									
Equipment												
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Without Project Design Fetures			With Project Design Features		
							Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
Roller	No	20	85	80	65	155	0	*Lmax	Leq	15	*Lmax	Leq
Generator	No	50	82	81	65	155	0	70.2	63.2	15	55.2	48.2
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							69.4			54.4		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							7.7			-7.3		



Construction Noise Calculation Worksheets

RECEPTOR #5 (Residential south of Project Site, fronting Blackburn Ave)												
Description		Ambient/Baseline (dBA)										
		Land Use	Daytime									
Multi-family residential south of the Project Site fronting Blackburn Avenue		Residential	57.5									
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Roller	No	20	85	80	215	265	10	55.5	48.5	10	55.5	48.5
Generator	No	50	82	81	215	265	10	56.5	53.5	10	56.5	53.5
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>54.7</b>			<b>54.7</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>-2.8</b>			<b>-2.8</b>		

RECEPTOR #6 (Residential west of Orlando Ave)												
Description		Ambient/Baseline (dBA)										
		Land Use	Daytime									
Multi-family residential west of Orlando Avenue		Residential	59.4									
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Roller	No	20	85	80	480	530	10	49.5	42.5	10	49.5	42.5
Generator	No	50	82	81	480	530	10	50.5	47.5	10	50.5	47.5
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>48.7</b>			<b>48.7</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>-10.7</b>			<b>-10.7</b>		

RECEPTOR #7 (Residential east of Sweetzer Ave)												
Description		Ambient/Baseline (dBA)										
		Land Use	Daytime									
Multi-family residential east of Sweetzer Avenue		Residential	61.7									
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Roller	No	20	85	80	390	480	10	50.4	43.4	10	50.4	43.4
Generator	No	50	82	81	390	480	10	51.4	48.3	10	51.4	48.3
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>49.5</b>			<b>49.5</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>-12.2</b>			<b>-12.2</b>		

RECEPTOR #8 (Residential north of 1st Street)												
Description		Ambient/Baseline (dBA)										
		Land Use	Daytime									
Multi-family residential north of 1st Street		Residential	61.7									
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Roller	No	20	85	80	460	510	10	49.8	42.8	25	34.8	27.8
Generator	No	50	82	81	460	510	10	50.8	47.8	25	35.8	32.8
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>49.0</b>			<b>34.0</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>-12.7</b>			<b>-27.7</b>		

- Notes:**
- Daytime noise levels are based on presumed ambient noise levels per LAMC 111.03.
  - An attenuation factor of 10 dBA was applied for sensitive receptors where buildings separate the Project Site and the associated sensitive receptor.
  - Calculations based on the loudest two pieces of heavy construction equipment specific to each phase.

Source: Roadway Construction Noise Model (RCNM), Version 1.1



Construction Noise Calculation Worksheets

Report date: 6/28/2023  
 Project: 3rd and Flores  
 Phase: Architectural Coatings

RECEPTOR #1 (Residential immediately north of Project Site; 127 S Flores St and 132 S Kings Rd)												
		Ambient/Baseline (dBA)										
Description	Land Use	Daytime										
Multi-family immediately north of the Project Site	Residential	61.7										
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Air Compressor	No	40	80	78	25	75	0	74.5	70.5	15	59.5	55.5
Air Compressor	No	40	80	78	25	75	0	74.5	70.5	15	59.5	55.5
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>73.5</b>			<b>58.5</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>11.8</b>			<b>-3.2</b>		

RECEPTOR #2 (Residences further north of the Project Site; between Kings Rd and Flores St)												
		Ambient/Baseline (dBA)										
Description	Land Use	Daytime										
Multi-family residential further north of Project Site, between Kings Rd and Flores St.	Residential	61.7										
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Air Compressor	No	40	80	78	80	130	10	59.7	55.7	25	44.7	40.7
Air Compressor	No	40	80	78	80	130	10	59.7	55.7	25	44.7	40.7
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>58.7</b>			<b>43.7</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>-3.0</b>			<b>-18.0</b>		

RECEPTOR #3 (Residential northwest of Project Site, between Kings Rd and Orland Ave)												
		Ambient/Baseline (dBA)										
Description	Land Use	Daytime										
Multi-family residential northwest of Project Site, between Kings Rd and Orlando Ave.	Residential	59.4										
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Air Compressor	No	40	80	78	160	250	10	54.0	50.0	25	39.0	35.0
Air Compressor	No	40	80	78	160	250	10	54.0	50.0	25	39.0	35.0
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>53.1</b>			<b>38.1</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>-6.3</b>			<b>-21.3</b>		

RECEPTOR #4 (Residential northeast of Project Site, between Flores St and Sweetzer Ave)												
		Ambient/Baseline (dBA)										
Description	Land Use	Daytime										
Multi-family residential northeast of Project Site, between Flores St and Orlando Ave	Residential	61.7										
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
								*Lmax	Leq		*Lmax	Leq
Air Compressor	No	40	80	78	65	155	0	68.2	64.2	15	53.2	49.2
Air Compressor	No	40	80	78	65	155	0	68.2	64.2	15	53.2	49.2
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>67.2</b>			<b>52.2</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>5.5</b>			<b>-9.5</b>		

Construction Noise Calculation Worksheets

RECEPTOR #5 (Residential south of Project Site, fronting Blackburn Ave)												
Description		Ambient/Baseline (dBA)										
Land Use		Daytime										
Multi-family residential south of the Project Site fronting Blackburn Avenue		Residential		57.5								
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
Air Compressor	No	40	80	78	215	265	10	*Lmax	Leq	10	*Lmax	Leq
Air Compressor	No	40	80	78	215	265	10	53.5	49.5	10	53.5	49.5
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>52.5</b>			<b>52.5</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>-5.0</b>			<b>-5.0</b>		

RECEPTOR #6 (Residential west of Orlando Ave)												
Description		Ambient/Baseline (dBA)										
Land Use		Daytime										
Multi-family residential west of Orlando Avenue		Residential		59.4								
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
Air Compressor	No	40	80	78	480	530	10	*Lmax	Leq	10	*Lmax	Leq
Air Compressor	No	40	80	78	480	530	10	47.5	43.5	10	47.5	43.5
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>46.5</b>			<b>46.5</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>-12.9</b>			<b>-12.9</b>		

RECEPTOR #7 (Residential east of Sweetzer Ave)												
Description		Ambient/Baseline (dBA)										
Land Use		Daytime										
Multi-family residential east of Sweetzer Avenue		Residential		61.7								
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
Air Compressor	No	40	80	78	390	480	10	*Lmax	Leq	10	*Lmax	Leq
Air Compressor	No	40	80	78	390	480	10	48.4	44.4	10	48.4	44.4
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>47.4</b>			<b>47.4</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>-14.3</b>			<b>-14.3</b>		

RECEPTOR #8 (Residential north of 1st Street)												
Description		Ambient/Baseline (dBA)										
Land Use		Daytime										
Multi-family residential north of 1st Street		Residential		61.7								
Equipment							Without Project Design Fetures			With Project Design Features		
Description	Impact Device	Usage(%)	Spec. Max (dBA)	Actual Max (dBA)	Receptor Distance to Project Site (Feet)	Receptor Distance to Centerline of Project Site (Feet)	Estimated Shielding (dBA)	Calculated (dBA)		Estimated Shielding (dBA)	Calculated (dBA)	
Air Compressor	No	40	80	78	460	510	10	*Lmax	Leq	25	*Lmax	Leq
Air Compressor	No	40	80	78	460	510	10	47.8	43.8	25	32.8	28.8
							<b>Construction Noise Level (dBA Leq)</b>			<b>Results</b>		
							<b>46.9</b>			<b>31.9</b>		
							<b>Noise Leve Above Ambient</b>			<b>Noise Leve Above Ambient</b>		
							<b>-14.8</b>			<b>-29.8</b>		

**Notes:**

1. Daytime noise levels are based on presumed ambient noise levels per LAMC 111.03.
2. An attenuation factor of 10 dBA was applied for sensitive receptors where buildings separate the Project Site and the associated sensitive receptor.
3. Calculations based on the loudest two pieces of heavy construction equipment specific to each phase.

Source: Roadway Construction Noise Model (RCNM), Version 1.1

**Construction Noise Impact Summary Without Project Design Features**

<b>Address</b>	<b>Ambient Noise (dBA Leq)</b>	<b>Noise Level Impact (dBA Leq) by Phase</b>			<b>Construction Noise Threshold (dBA Leq)**</b>	<b>Noise Impact Above Threshold</b>
		<b>Site Preparation</b>	<b>Building Construction</b>	<b>Architectural Coating</b>		
RECEPTOR #1 (Residential immediately north of Project Site; 127 S Flores St and 132 S Kings Rd)	61.7	79.3	75.7	73.5	66.7	12.6
RECEPTOR #2 (Residences further north of the Project Site; between Kings Rd and Flores St)	61.7	64.5	60.9	58.7	66.7	-2.2
RECEPTOR #3 (Residential northwest of Project Site, between Kings Rd and Orland Ave)	59.4	58.8	55.2	53.1	64.4	0.0
RECEPTOR #4 (Residential northeast of Project Site, between Flores St and Sweetzer Ave)	61.7	73.0	69.4	67.2	66.7	6.3
RECEPTOR #5 (Residential south of Project Site, fronting Blackburn Ave)	57.5	58.3	54.7	52.5	62.5	-4.2
RECEPTOR #6 (Residential west of Orlando Ave)	59.4	52.3	48.7	46.5	64.4	0.0
RECEPTOR #7 (Residential east of Sweetzer Ave)	61.7	53.1	49.5	47.4	66.7	0.0
RECEPTOR #8 (Residential north of 1st Street)	61.7	52.6	49.0	46.9	66.7	0.0

\*\* Significance criteria is based on a 5- dBA noise increase above ambient threshold.

**Construction Noise Impact Summary With Project Design Features**

<b>Address</b>	<b>Ambient Noise (dBA Leq)</b>	<b>Noise Level Impact (dBA Leq) by Phase</b>			<b>Construction Noise Threshold (dBA Leq)**</b>	<b>Noise Impact Above Threshold</b>
		<b>Site Preparation</b>	<b>Building Construction</b>	<b>Architectural Coating</b>		
RECEPTOR #1 (Residential immediately north of Project Site; 127 S Flores St and 132 S Kings Rd)	61.7	64.3	60.7	58.5	66.7	0.0
RECEPTOR #2 (Residences further north of the Project Site; between Kings Rd and Flores St)	61.7	49.5	45.9	43.7	66.7	0.0
RECEPTOR #3 (Residential northwest of Project Site, between Kings Rd and Orland Ave)	59.4	43.8	40.2	38.1	64.4	0.0
RECEPTOR #4 (Residential northeast of Project Site, between Flores St and Sweetzer Ave)	61.7	58.0	54.4	52.2	66.7	0.0
RECEPTOR #5 (Residential south of Project Site, fronting Blackburn Ave)	57.5	58.3	54.7	52.5	62.5	0.0
RECEPTOR #6 (Residential west of Orlando Ave)	59.4	52.3	48.7	46.5	64.4	0.0
RECEPTOR #7 (Residential east of Sweetzer Ave)	61.7	53.1	49.5	47.4	66.7	0.0
RECEPTOR #8 (Residential north of 1st Street)	61.7	37.6	34.0	31.9	66.7	0.0

\*\* Significance criteria is based on a 5- dBA noise increase above ambient threshold.

Estimated Crowd Noise Levels



**Project:** 3rd and Flores Project  
**Date:** December 22, 2023

Outdoor Noise Sources	Area	Est. Occupancy	
N1: Level 4 Courtyard/Landscaped Area (sf)=	1,600	32	(@50sf/person)
N2: Roof Sky Deck (sf)=	909	18	(@50sf/person)

	50% Male	50% Female	50% of people	Total people
N1: Level 4 Courtyard/Landscaped Area (sf)=	8	8	16	32
N2: Roof Sky Deck (sf)=	5	5	9	18

	Male Speaking @ 3ft (dBA Leq)	Female Speaking @ 3ft (dBA Leq)
<b>Reference SPL (crowd)</b>	<b>65</b>	<b>62</b>
SPL(N1) = 10log10 (10^SPL(N1male)/10 + 10^SPL(N1female)/10)		

Composite Reference Noise Levels			
	Male Voices	Female Voices	Total Crowd Noise
N1: Level 4 Courtyard/Landscaped Area	74	71.03	75.80
N2: Roof Sky Deck	72	68.58	73.34

Sensitive Receptor Ambient Noise Level (dBA Leq)	
1 Multi-family to the north	61.7
2 Multi-family to the northeast	61.7

ID	Distance (feet)	Est. Crowd Noise @ Source (dBA)	Estimated Shielding (dBA)	Estimated Noise Level @ Reciever (dBA)
<b>1 Multi-family to the north</b>				
N1: Level 4 Courtyard/Landscaped Area	65	75.80	10	39.05
N2: Roof Sky Deck	76	73.34	0	45.30
		Crowd Noise (dBA Leq)		39.05
		Ambient Noise (dBA Leq)		61.70
		<b>Crowd + Ambient (dBA Leq)</b>		<b>61.72</b>
		<b>Project Impact (dBA Leq)</b>		<b>0.02</b>
<b>2 Multi-family to the northeast</b>				
N1: Level 4 Courtyard/Landscaped Area	115	75.80	10	34.09
N2: Roof Sky Deck	105	73.34	0	42.49
		Crowd Noise (dBA Leq)		42.49
		Ambient Noise (dBA Leq)		61.70
		<b>Crowd + Ambient (dBA Leq)</b>		<b>61.75</b>
		<b>Project Impact (dBA Leq)</b>		<b>0.05</b>

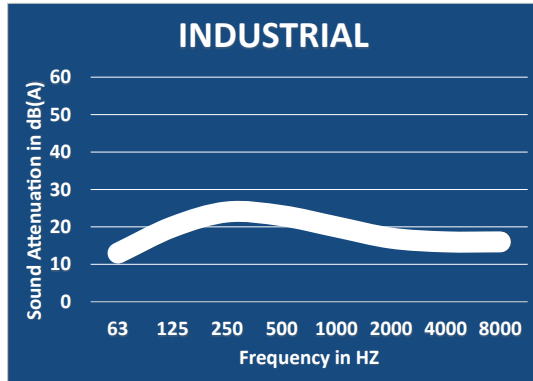
- Note: 1) Formulas provided by Caltrans Technical Noise Supplement (September 2013)  
 2) Distances were calculated by estimating the linear distance to the 4th level deck and sky decks using the pythagorean theorem.  
 3) Assumes a 10-dBA reduction for the 4th level open space since the Project's northern facades would provide a barrier.



# Industrial Grade Silencers

## Model NTIN-C (Cylindrical), 15-20 dBA

### TYPICAL ATTENUATION CURVE



Nett Technologies' Industrial Grade Silencers are designed to achieve maximum performance with the least amount of backpressure.

The silencers are Reactive Silencers and are typically used for reciprocating or positive displacement engines where noise level regulations are low.

### FEATURES & BENEFITS

- Over 25 years of excellence in manufacturing noise and emission control solutions
- Compact modular designs providing ease of installations, less weight and less foot-print
- Responsive lead time for both standard and custom designs to meet your needs
- Customized engineered systems solutions to meet challenging integration and engine requirements

Contact Nett Technologies with your projects design requirements and specifications for optimized noise control solutions.

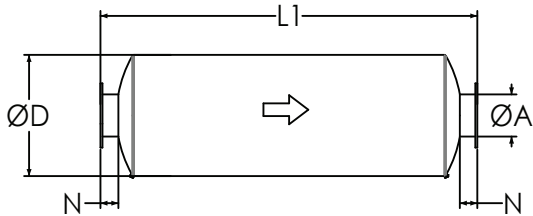
### OPTIONS

- Versatile connections including ANSI pattern flanges, NPT, slip-on, engine flange, schedule 40 and others
- Aluminized Steel, Stainless Steel 304 or 316 construction
- Horizontal or vertical mounting brackets and lifting lugs

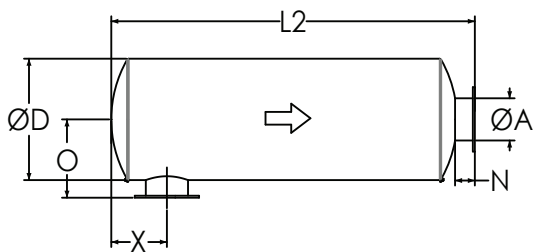
### ACCESSORIES

- Hardware Kits
- Flexible connectors and expansion joints
- Elbows
- Thimbles
- Raincaps
- Thermal insulation: integrated or with thermal insulation blankets
- Please see our accessories catalog for a complete listing

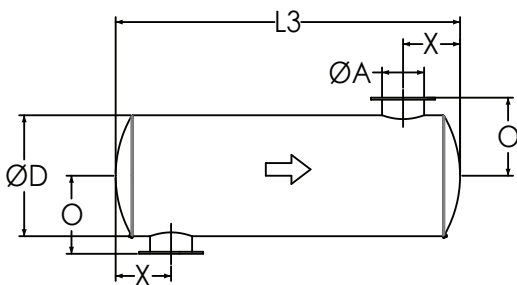
### TYPICAL CONFIGURATIONS



END IN END OUT (EI-EO)



SIDE IN END OUT (SI-EO)



SIDE IN SIDE OUT (SI-SO)

### PRODUCT DIMENSIONS (in)

Model*	A	D	L1	L2	L3	X**	X	N	O
	Outlet	Dia	EI-EO	SI-EO	SI-SO	Min	Max	Nipple	O
NTIN-C1	1	4	20	18	16	3	7	2	4
NTIN-C1.5	1.5	6	22	20	18	3	8	2	5
NTIN-C2	2	6	22	19	16	3	8	3	6
NTIN-C2.5	2.5	6	24	21	18	4	9	3	6
NTIN-C3	3	8	26	23	20	5	10	3	7
NTIN-C3.5	3.5	9	28	25	22	5	11	3	8
NTIN-C4	4	10	32	29	26	5	12	3	8
NTIN-C5	5	12	36	33	30	6	14	3	9
NTIN-C6	6	14	40	36	32	7	16	4	11
NTIN-C8	8	16	50	46	42	8	21	4	12
NTIN-C10	10	20	52	48	44	11	21	4	14
NTIN-C12	12	24	62	58	54	12	26	4	16
NTIN-C14	14	30	74	69	64	15	31	5	20
NTIN-C16	16	36	82	77	72	18	35	5	23
NTIN-C18	18	40	94	89	84	18	42	5	25
NTIN-C20	20	40	110	105	100	19	52	5	25
NTIN-C22	22	48	118	113	108	22	56	5	29
NTIN-C24	24	48	130	125	120	24	62	5	29

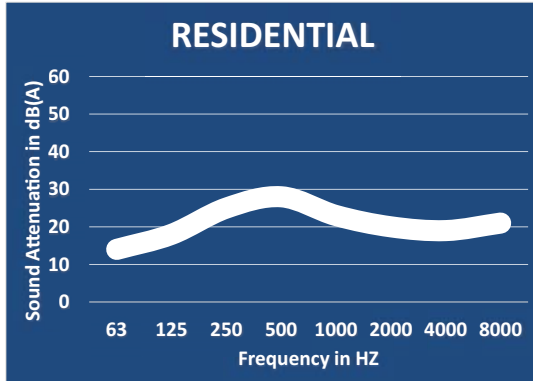
\* Other models and custom designs are available upon request. Dimensions subject to change without notice. All silencers are equipped with drain ports on inlet side. The silencer is all welded construction and coated with high heat black paint for maximum durability.

\*\* Standard inlet/outlet position.

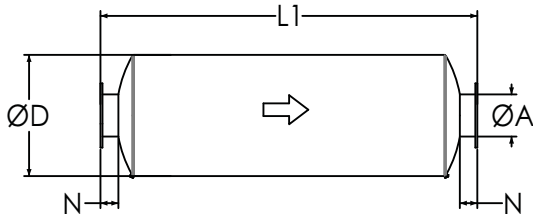
# Residential Grade Silencers

## Model NTRS-C (Cylindrical), 20-25 dBA

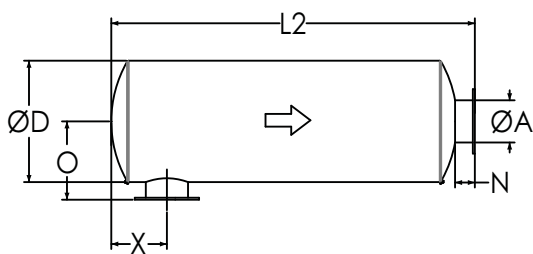
### TYPICAL ATTENUATION CURVE



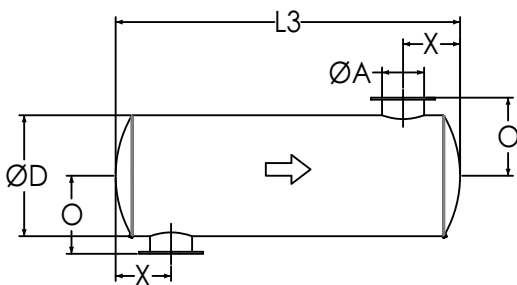
### TYPICAL CONFIGURATIONS



**END IN END OUT (EI-EO)**



**SIDE IN END OUT (SI-EO)**



**SIDE IN SIDE OUT (SI-SO)**

Nett Technologies' Residential Grade Silencers are designed to achieve maximum performance with the least amount of backpressure. The silencers are Reactive Silencers and are typically used for reciprocating or positive displacement engines where noise level regulations are medium-low.

### FEATURES & BENEFITS

- Over 25 years of excellence in manufacturing noise and emission control solutions
- Compact modular designs providing ease of installations, less weight and less foot-print
- Responsive lead time for both standard and custom designs to meet your needs
- Customized engineered systems solutions to meet challenging integration and engine requirements

Contact Nett Technologies with your projects design requirements and specifications for optimized noise control solutions.

### OPTIONS

- Versatile connections including ANSI pattern flanges, NPT, slip-on, engine flange, schedule 40 and others
- Aluminized Steel, Stainless Steel 304 or 316 construction
- Horizontal or vertical mounting brackets and lifting lugs

### ACCESSORIES

- Hardware Kits
- Flexible connectors and expansion joints
- Elbows
- Thimbles
- Raincaps
- Thermal insulation: integrated or with thermal insulation blankets
- Please see our accessories catalog for a complete listing

### PRODUCT DIMENSIONS (in)

Model*	A	D	L1	L2	L3	X**	X	N	O
	Outlet	Dia	EI-EO	SI-EO	SI-SO	Min	Max	Nipple	O
NTRS-C1	1	4	20	18	16	3	10	2	4
NTRS-C1.5	1.5	6	28	26	24	3	12	2	5
NTRS-C2	2	6	28	25	22	4	12	3	6
NTRS-C2.5	2.5	6	32	29	26	4	14	3	6
NTRS-C3	3	6	34	31	28	5	15	3	6
NTRS-C3.5	3.5	9	36	33	30	5	16	3	8
NTRS-C4	4	10	40	37	34	5	17	3	8
NTRS-C5	5	12	42	39	36	6	18	3	9
NTRS-C6	6	14	44	40	36	7	19	4	11
NTRS-C8	8	16	56	52	48	9	24	4	12
NTRS-C10	10	20	58	54	50	11	24	4	14
NTRS-C12	12	24	70	66	62	13	31	4	16
NTRS-C14	14	30	80	75	70	17	35	5	20
NTRS-C16	16	36	90	85	80	17	40	5	23
NTRS-C18	18	40	102	97	92	18	47	5	25
NTRS-C20	20	42	108	103	98	21	50	5	26
NTRS-C22	22	48	116	111	106	23	54	5	29
NTRS-C24	24	48	130	125	120	26	61	5	29

\* Other models and custom designs are available upon request. Dimensions subject to change without notice. All silencers are equipped with drain ports on inlet side. The silencer is all welded construction and coated with high heat black paint for maximum durability.

\*\* Standard inlet/outlet position.



# Acoustical Surfaces, Inc.

**SOUNDPROOFING, ACOUSTICS, NOISE & VIBRATION CONTROL SPECIALISTS**

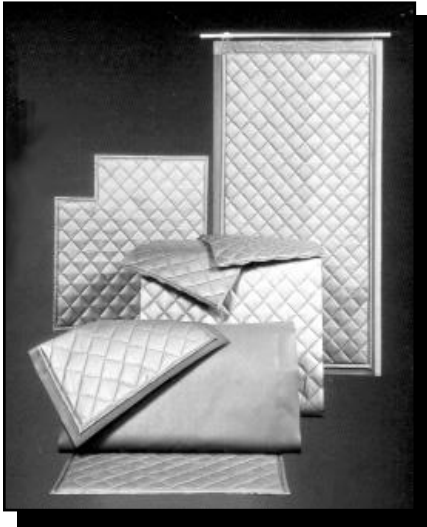
123 Columbia Court North • Suite 201 • Chaska, MN 55318

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Email: [sales@acousticalsurfaces.com](mailto:sales@acousticalsurfaces.com)

Visit our Website: [www.acousticalsurfaces.com](http://www.acousticalsurfaces.com)

**We Identify and S.T.O.P. Your Noise Problems**



## QUILTED CURTAIN S.T.O.P.

**Absorptive/Noise Barrier Quilted Curtains**

- **For Unusual Conditions**
- **Cost Effective**
- **Water & Chemical Resistant**
- **Exterior Applications**

**MATERIAL:** Foam or fiberglass core, faced with quilted aluminized fabric.

**PATTERN:** Quilted pattern.

**FEATURES:** Effective and durable absorber with mass loaded vinyl barrier option.

**APPLICATIONS:** Effective solution to a wide range of noise control problems. Machinery and work area enclosures.

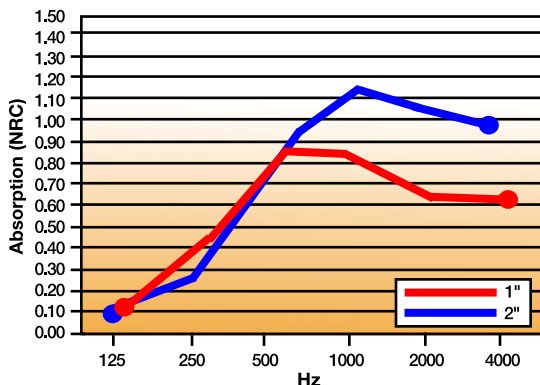
**THICKNESS:** 1" & 2".

**NOM SIZES:** BSC-25 Curtain (Quilting on both sides) standard: 48" wide and Lengths up to 25'.  
BBC-13 Curtain (Quilting on one side) standard: 54" wide and Lengths up to 25'. Custom sizes also available.

**COLOR:** Silver (Other colors available upon request).

**FLAMMABILITY:** ASTM E-84, Class A. Flame Spread: 23, Smoke Developed: 30.

**INSTALLATION:** Hook and loop fasteners, grommet hangers, curtain support hardware.



CURTAIN S.T.O.P. Sound Transmission Loss - ASTM E90							
Frequency	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	STC
BSC-25 w/ 1 lb. Barrier	12	10	27	40	44	43	29
BSC-25 w/ 2 lb. Barrier	19	22	28	40	56	61	33
BBC-13 w/ 1 lb. Barrier	11	10	24	30	35	35	27
BBC-13 w/ 2 lb. Barrier	19	22	28	40	56	61	33

/a/  
/b/

CURTAIN S.T.O.P. Sound Absorption Coefficients							
Frequency	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	NRC
1" Fiberglass	.12	.47	.85	.84	.64	.62	.70
2" Fiberglass	.19	.99	.96	.80	.57	.33	.85

/a/ Sound transmission loss is the decibel reduction achieved at different frequencies. Construction noise occurs throughout the frequency spectrum. An example of high frequency noise is the whining sound from a concrete saw or jackhammering, low frequency noise can be usually attributed to equipment such as the humming of a generator.

/b/ Sound Transmission Class (STC) is the integer rating of how well a material attenuates airborne sound. It is however a rough idea of sound reduction versus the transmission loss calculated at different frequencies.

- Soundproofing Products • Sonex™ Ceiling & Wall Panels • Sound Control Curtains • Equipment Enclosures • Acoustical Baffles & Banners • Solid Wood & Veneer Acoustical Ceiling & Wall Systems
- Professional Audio Acoustics • Vibration & Damping Control • Fire Retardant Acoustics • Hearing Protection • Moisture & Impact Resistant Products • Floor Impact Noise Reduction
- Sound Absorbers • Noise Barriers • Fabric Wrapped Wall Panels • Acoustical Foam (Egg Crate) • Acoustical Sealants & Adhesives • Outdoor Noise Control • Assistive Listening Devices
- OSHA, FDA, ADA Compliance • On-Site Acoustical Analysis • Acoustical Design & Consulting • Large Inventory • Fast Shipment • No Project too Large or Small • Major Credit Cards Accepted



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**We Identify and S.T.O.P. Your Noise Problems**



## Echo Barrier™

### The Industry's First Reusable, Indoor/ Outdoor Noise Barrier/Absorber

- Superior acoustic performance
- Industrial durability
- Simple and quick installation system
- Lightweight for easy handling
- Unique roll-up design for compact storage and transportation
- Double or triple up for noise 'hot spots'
- Ability to add branding or messages
- Range of accessories available
- Weatherproof – absorbs sound but not water
- Fire retardant
- 1 person can do the job of 2 or 3 people



Why is it all too often we see construction sites with fencing but no regard for sound issues created from the construction that is taking place? This is due to the fact that there has not been an efficient means of treating this type of noise that was cost effective **until now**.

Echo Barrier temporary fencing is a reusable, outdoor noise barrier. Designed to fit on all types of temporary fencing. Echo Barrier absorbs sound while remaining quick to install, light to carry and tough to last.

**BENEFITS:** Echo Barrier can help reduce noise complaints, enhance your company reputation, extend site operating hours, reduce project timescales & costs, and improve working conditions.

**APPLICATIONS:** Echo Barrier works great for construction & demolition sites; rail maintenance & replacement; music, sports and other public events; road construction; utility/maintenance sites; loading and unloading areas; outdoor gun ranges.

**DIMENSIONS:** 6.56' × 4.49'.

**WEIGHT:** 13 lbs.

**ACOUSTIC PERFORMANCE:** 10-20dB noise reduction (greater if barrier is doubled up).

**INSTALLATION:** The Echo Barrier is easily installed using our quick hook system and specially designed elastic ties.

Echo Barrier Transmission Loss Field Data							
	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz
Single Layer	6	12	16	23	28	30	30
Double Layer	7	19	24	28	32	31	32

**Exhibit B, Attachment 4: Air Quality Modeling and  
Greenhouse Gas Emissions Worksheets  
Case No. CPC-2023-4573-DB-CU-HCA**

# 3rd and Flores Project Custom Report

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4.1.1. Unmitigated

4.1.2. Mitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.3.2. Mitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.4.2. Mitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.5.2. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated



4.8.2. Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

## 5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

## 5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

## 5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

## 5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

## 5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	3rd and Flores Project
Construction Start Date	12/3/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	19.6
Location	8339 W 3rd St, Los Angeles, CA 90048, USA
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4363
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.21

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Apartments Mid Rise	79.0	Dwelling Unit	0.44	79,040	1,127	—	173	—
Regional Shopping Center	11.0	1000sqft	0.00	11,026	0.00	—	—	—
Enclosed Parking with Elevator	38.0	Space	0.00	40,833	0.00	—	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Transportation	T-1	Increase Residential Density
Transportation	T-3	Provide Transit-Oriented Development
Transportation	T-4	Integrate Affordable and Below Market Rate Housing
Transportation	T-15	Limit Residential Parking Supply
Transportation	T-34*	Provide Bike Parking
Energy	E-12-B	Install Electric Space Heater in Place of Natural Gas Heaters in Residences
Energy	E-13	Install Electric Ranges in Place of Gas Ranges
Energy	E-15	Require All-Electric Development
Water	W-7	Adopt a Water Conservation Strategy
Waste	S-1/S-2	Implement Waste Reduction Plan

\* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.72	11.6	19.6	0.03	0.43	1.16	1.59	0.39	0.28	0.67	—	3,604	3,604	0.15	0.13	5.40	3,651
Mit.	7.72	11.6	19.6	0.03	0.43	1.16	1.59	0.39	0.28	0.67	—	3,604	3,604	0.15	0.13	5.40	3,651
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.72	16.6	18.8	0.04	0.67	2.90	3.58	0.62	1.22	1.84	—	4,744	4,744	0.21	0.41	0.16	4,872
Mit.	7.72	16.6	18.8	0.04	0.67	2.90	3.58	0.62	1.22	1.84	—	4,744	4,744	0.21	0.41	0.16	4,872
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.43	8.52	13.3	0.02	0.32	0.92	1.24	0.29	0.25	0.54	—	2,614	2,614	0.11	0.11	1.69	2,651
Mit.	2.43	8.52	13.3	0.02	0.32	0.92	1.24	0.29	0.25	0.54	—	2,614	2,614	0.11	0.11	1.69	2,651
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.44	1.56	2.43	< 0.005	0.06	0.17	0.23	0.05	0.05	0.10	—	433	433	0.02	0.02	0.28	439
Mit.	0.44	1.56	2.43	< 0.005	0.06	0.17	0.23	0.05	0.05	0.10	—	433	433	0.02	0.02	0.28	439
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

### 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.61	11.6	19.6	0.03	0.43	1.16	1.59	0.39	0.28	0.67	—	3,604	3,604	0.15	0.13	5.40	3,651
2026	7.72	11.1	19.2	0.03	0.38	1.16	1.54	0.34	0.28	0.62	—	3,572	3,572	0.15	0.13	4.98	3,619
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.50	16.6	15.4	0.04	0.67	2.90	3.58	0.62	1.22	1.84	—	4,744	4,744	0.21	0.41	0.16	4,872
2025	1.61	14.9	18.8	0.04	0.58	2.90	3.49	0.54	1.22	1.76	—	4,700	4,700	0.21	0.40	0.16	4,824
2026	7.72	11.1	18.4	0.03	0.38	1.16	1.54	0.34	0.28	0.62	—	3,518	3,518	0.15	0.13	0.13	3,560
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.09	0.94	0.88	< 0.005	0.04	0.16	0.20	0.04	0.07	0.10	—	269	269	0.01	0.02	0.15	277
2025	1.13	8.52	13.3	0.02	0.32	0.92	1.24	0.29	0.25	0.54	—	2,614	2,614	0.11	0.11	1.69	2,651
2026	2.43	6.06	9.72	0.01	0.19	0.52	0.71	0.17	0.12	0.30	—	1,751	1,751	0.07	0.06	0.97	1,770
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.02	0.17	0.16	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	—	44.6	44.6	< 0.005	< 0.005	0.03	45.8
2025	0.21	1.56	2.43	< 0.005	0.06	0.17	0.23	0.05	0.05	0.10	—	433	433	0.02	0.02	0.28	439

2026	0.44	1.11	1.77	< 0.005	0.03	0.10	0.13	0.03	0.02	0.05	—	290	290	0.01	0.01	0.16	293
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### 2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.61	11.6	19.6	0.03	0.43	1.16	1.59	0.39	0.28	0.67	—	3,604	3,604	0.15	0.13	5.40	3,651
2026	7.72	11.1	19.2	0.03	0.38	1.16	1.54	0.34	0.28	0.62	—	3,572	3,572	0.15	0.13	4.98	3,619
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.50	16.6	15.4	0.04	0.67	2.90	3.58	0.62	1.22	1.84	—	4,744	4,744	0.21	0.41	0.16	4,872
2025	1.61	14.9	18.8	0.04	0.58	2.90	3.49	0.54	1.22	1.76	—	4,700	4,700	0.21	0.40	0.16	4,824
2026	7.72	11.1	18.4	0.03	0.38	1.16	1.54	0.34	0.28	0.62	—	3,518	3,518	0.15	0.13	0.13	3,560
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.09	0.94	0.88	< 0.005	0.04	0.16	0.20	0.04	0.07	0.10	—	269	269	0.01	0.02	0.15	277
2025	1.13	8.52	13.3	0.02	0.32	0.92	1.24	0.29	0.25	0.54	—	2,614	2,614	0.11	0.11	1.69	2,651
2026	2.43	6.06	9.72	0.01	0.19	0.52	0.71	0.17	0.12	0.30	—	1,751	1,751	0.07	0.06	0.97	1,770
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.02	0.17	0.16	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	—	44.6	44.6	< 0.005	< 0.005	0.03	45.8
2025	0.21	1.56	2.43	< 0.005	0.06	0.17	0.23	0.05	0.05	0.10	—	433	433	0.02	0.02	0.28	439
2026	0.44	1.11	1.77	< 0.005	0.03	0.10	0.13	0.03	0.02	0.05	—	290	290	0.01	0.01	0.16	293

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.57	5.74	29.0	0.05	0.17	4.06	4.23	0.17	1.03	1.20	36.7	6,286	6,322	4.06	0.23	15.8	6,507
Mit.	5.50	4.82	20.8	0.03	0.15	2.34	2.49	0.14	0.59	0.74	14.6	4,117	4,131	1.72	0.14	9.37	4,227
% Reduced	16%	16%	28%	40%	16%	42%	41%	16%	42%	39%	60%	35%	35%	58%	36%	41%	35%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.76	5.84	21.1	0.05	0.17	4.06	4.23	0.17	1.03	1.20	36.7	6,077	6,113	4.07	0.24	1.01	6,286
Mit.	4.70	4.86	13.4	0.03	0.14	2.34	2.48	0.14	0.59	0.73	14.6	3,987	4,002	1.73	0.15	0.85	4,091
% Reduced	18%	17%	36%	40%	17%	42%	41%	17%	42%	39%	60%	34%	35%	57%	37%	16%	35%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.12	2.22	21.8	0.04	0.05	3.52	3.58	0.05	0.89	0.95	36.7	5,214	5,250	4.02	0.21	6.38	5,419
Mit.	4.18	1.31	14.6	0.02	0.03	1.97	2.00	0.03	0.50	0.53	14.6	3,264	3,279	1.69	0.13	3.85	3,364
% Reduced	18%	41%	33%	45%	49%	44%	44%	50%	44%	44%	60%	37%	38%	58%	38%	40%	38%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	0.41	3.97	0.01	0.01	0.64	0.65	0.01	0.16	0.17	6.08	863	869	0.67	0.03	1.06	897
Mit.	0.76	0.24	2.66	< 0.005	0.01	0.36	0.37	< 0.005	0.09	0.10	2.42	540	543	0.28	0.02	0.64	557
% Reduced	18%	41%	33%	45%	49%	44%	44%	50%	44%	44%	60%	37%	38%	58%	38%	40%	38%
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	Yes	—	—	—	—	—	—

Mit.	No	No	No	No	—	—	No	—	—	No	Yes	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	Yes	—	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	Yes	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	No
Mit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	No

## 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.87	1.79	20.1	0.04	0.03	4.06	4.09	0.03	1.03	1.06	—	4,543	4,543	0.25	0.19	15.2	4,623
Area	2.86	0.06	6.74	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Energy	0.01	0.21	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,252	1,252	0.09	0.01	—	1,258
Water	—	—	—	—	—	—	—	—	—	—	7.21	48.6	55.9	0.74	0.02	—	79.8
Waste	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Stationary	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Total	6.57	5.74	29.0	0.05	0.17	4.06	4.23	0.17	1.03	1.20	36.7	6,286	6,322	4.06	0.23	15.8	6,507

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.84	1.96	18.9	0.04	0.03	4.06	4.09	0.03	1.03	1.06	—	4,356	4,356	0.27	0.20	0.39	4,424
Area	2.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	0.21	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,252	1,252	0.09	0.01	—	1,258
Water	—	—	—	—	—	—	—	—	—	—	7.21	48.6	55.9	0.74	0.02	—	79.8
Waste	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Stationary	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Total	5.76	5.84	21.1	0.05	0.17	4.06	4.23	0.17	1.03	1.20	36.7	6,077	6,113	4.07	0.24	1.01	6,286
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.44	1.73	16.9	0.04	0.03	3.52	3.55	0.02	0.89	0.92	—	3,870	3,870	0.23	0.18	5.76	3,935
Area	2.62	0.04	4.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.6	14.6	< 0.005	< 0.005	—	14.6
Energy	0.01	0.21	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,252	1,252	0.09	0.01	—	1,258
Water	—	—	—	—	—	—	—	—	—	—	7.21	48.6	55.9	0.74	0.02	—	79.8
Waste	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Stationary	0.05	0.24	0.14	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	27.6	27.6	< 0.005	< 0.005	0.00	27.7
Total	5.12	2.22	21.8	0.04	0.05	3.52	3.58	0.05	0.89	0.95	36.7	5,214	5,250	4.02	0.21	6.38	5,419
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.45	0.31	3.09	0.01	< 0.005	0.64	0.65	< 0.005	0.16	0.17	—	641	641	0.04	0.03	0.95	651
Area	0.48	0.01	0.84	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.41	2.41	< 0.005	< 0.005	—	2.42
Energy	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	207	207	0.02	< 0.005	—	208
Water	—	—	—	—	—	—	—	—	—	—	1.19	8.05	9.25	0.12	< 0.005	—	13.2
Waste	—	—	—	—	—	—	—	—	—	—	4.89	0.00	4.89	0.49	0.00	—	17.1

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
Stationary	0.01	0.04	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	4.57	4.57	< 0.005	< 0.005	0.00	4.58
Total	0.94	0.41	3.97	0.01	0.01	0.64	0.65	0.01	0.16	0.17	6.08	863	869	0.67	0.03	1.06	897

## 2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.82	1.08	11.9	0.03	0.02	2.34	2.36	0.02	0.59	0.61	—	2,632	2,632	0.15	0.12	8.75	2,679
Area	2.86	0.06	6.74	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1,005	1,005	0.07	0.01	—	1,009
Water	—	—	—	—	—	—	—	—	—	—	5.77	38.9	44.7	0.59	0.01	—	63.8
Waste	—	—	—	—	—	—	—	—	—	—	8.86	0.00	8.86	0.89	0.00	—	31.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Stationary	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Total	5.50	4.82	20.8	0.03	0.15	2.34	2.49	0.14	0.59	0.74	14.6	4,117	4,131	1.72	0.14	9.37	4,227
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.79	1.18	11.3	0.02	0.02	2.34	2.36	0.02	0.59	0.61	—	2,524	2,524	0.16	0.12	0.23	2,565
Area	2.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1,005	1,005	0.07	0.01	—	1,009
Water	—	—	—	—	—	—	—	—	—	—	5.77	38.9	44.7	0.59	0.01	—	63.8
Waste	—	—	—	—	—	—	—	—	—	—	8.86	0.00	8.86	0.89	0.00	—	31.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62

Stationar	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Total	4.70	4.86	13.4	0.03	0.14	2.34	2.48	0.14	0.59	0.73	14.6	3,987	4,002	1.73	0.15	0.85	4,091
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.51	1.01	9.83	0.02	0.01	1.97	1.99	0.01	0.50	0.51	—	2,179	2,179	0.14	0.10	3.23	2,216
Area	2.62	0.04	4.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.6	14.6	< 0.005	< 0.005	—	14.6
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1,005	1,005	0.07	0.01	—	1,009
Water	—	—	—	—	—	—	—	—	—	—	5.77	38.9	44.7	0.59	0.01	—	63.8
Waste	—	—	—	—	—	—	—	—	—	—	8.86	0.00	8.86	0.89	0.00	—	31.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Stationar y	0.05	0.24	0.14	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	27.6	27.6	< 0.005	< 0.005	0.00	27.7
Total	4.18	1.31	14.6	0.02	0.03	1.97	2.00	0.03	0.50	0.53	14.6	3,264	3,279	1.69	0.13	3.85	3,364
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.27	0.18	1.79	< 0.005	< 0.005	0.36	0.36	< 0.005	0.09	0.09	—	361	361	0.02	0.02	0.53	367
Area	0.48	0.01	0.84	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.41	2.41	< 0.005	< 0.005	—	2.42
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	166	166	0.01	< 0.005	—	167
Water	—	—	—	—	—	—	—	—	—	—	0.96	6.44	7.40	0.10	< 0.005	—	10.6
Waste	—	—	—	—	—	—	—	—	—	—	1.47	0.00	1.47	0.15	0.00	—	5.13
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
Stationar y	0.01	0.04	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	4.57	4.57	< 0.005	< 0.005	0.00	4.58
Total	0.76	0.24	2.66	< 0.005	0.01	0.36	0.37	< 0.005	0.09	0.10	2.42	540	543	0.28	0.02	0.64	557

### 3. Construction Emissions Details

#### 3.1. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.42	13.6	13.8	0.02	0.64	—	0.64	0.59	—	0.59	—	2,182	2,182	0.09	0.02	—	2,189
Dust From Material Movement	—	—	—	—	—	2.13	2.13	—	1.01	1.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.77	0.78	< 0.005	0.04	—	0.04	0.03	—	0.03	—	124	124	0.01	< 0.005	—	124
Dust From Material Movement	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.14	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.5	20.5	< 0.005	< 0.005	—	20.6
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.06	0.64	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	< 0.005	0.01	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	2.92	0.98	0.02	0.03	0.65	0.68	0.03	0.18	0.21	—	2,428	2,428	0.12	0.39	0.15	2,548
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.71	7.71	< 0.005	< 0.005	0.01	7.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	0.06	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	138	138	0.01	0.02	0.14	145
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.8	22.8	< 0.005	< 0.005	0.02	24.0

### 3.2. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.42	13.6	13.8	0.02	0.64	—	0.64	0.59	—	0.59	—	2,182	2,182	0.09	0.02	—	2,189
Dust From Material Movement	—	—	—	—	—	2.13	2.13	—	1.01	1.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.77	0.78	< 0.005	0.04	—	0.04	0.03	—	0.03	—	124	124	0.01	< 0.005	—	124
Dust From Material Movement	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.14	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.5	20.5	< 0.005	< 0.005	—	20.6
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.06	0.64	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	< 0.005	0.01	135



Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	2.92	0.98	0.02	0.03	0.65	0.68	0.03	0.18	0.21	—	2,428	2,428	0.12	0.39	0.15	2,548
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.71	7.71	< 0.005	< 0.005	0.01	7.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	0.06	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	138	138	0.01	0.02	0.14	145
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.8	22.8	< 0.005	< 0.005	0.02	24.0

### 3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.30	12.1	13.1	0.02	0.55	—	0.55	0.51	—	0.51	—	2,183	2,183	0.09	0.02	—	2,190
Dust From Material Movement	—	—	—	—	—	2.13	2.13	—	1.01	1.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.73	0.80	< 0.005	0.03	—	0.03	0.03	—	0.03	—	132	132	0.01	< 0.005	—	133
Dust From Material Movement	—	—	—	—	—	0.13	0.13	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	21.9	21.9	< 0.005	< 0.005	—	22.0
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.59	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	< 0.005	0.01	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	2.81	0.96	0.02	0.03	0.65	0.68	0.03	0.18	0.21	—	2,386	2,386	0.12	0.37	0.15	2,501
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.07	8.07	< 0.005	< 0.005	0.01	8.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.17	0.06	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	145	145	0.01	0.02	0.15	152
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.34	1.34	< 0.005	< 0.005	< 0.005	1.35
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.0	24.0	< 0.005	< 0.005	0.02	25.1

### 3.4. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.30	12.1	13.1	0.02	0.55	—	0.55	0.51	—	0.51	—	2,183	2,183	0.09	0.02	—	2,190
Dust From Material Movement	—	—	—	—	—	2.13	2.13	—	1.01	1.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.73	0.80	< 0.005	0.03	—	0.03	0.03	—	0.03	—	132	132	0.01	< 0.005	—	133
Dust From Material Movement	—	—	—	—	—	0.13	0.13	—	0.06	0.06	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	21.9	21.9	< 0.005	< 0.005	—	22.0
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.59	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	< 0.005	0.01	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	2.81	0.96	0.02	0.03	0.65	0.68	0.03	0.18	0.21	—	2,386	2,386	0.12	0.37	0.15	2,501
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.07	8.07	< 0.005	< 0.005	0.01	8.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	0.06	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	145	145	0.01	0.02	0.15	152
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.34	1.34	< 0.005	< 0.005	< 0.005	1.35
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.0	24.0	< 0.005	< 0.005	0.02	25.1

## 3.5. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26	10.6	13.9	0.02	0.42	—	0.42	0.39	—	0.39	—	1,993	1,993	0.08	0.02	—	2,000
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26	10.6	13.9	0.02	0.42	—	0.42	0.39	—	0.39	—	1,993	1,993	0.08	0.02	—	2,000
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	6.93	9.10	0.01	0.28	—	0.28	0.25	—	0.25	—	1,303	1,303	0.05	0.01	—	1,307
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.27	1.66	< 0.005	0.05	—	0.05	0.05	—	0.05	—	216	216	0.01	< 0.005	—	216
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33	0.34	5.40	0.00	0.00	1.01	1.01	0.00	0.24	0.24	—	1,073	1,073	0.05	0.04	3.93	1,089
Vendor	0.02	0.61	0.30	< 0.005	0.01	0.15	0.15	< 0.005	0.04	0.04	—	538	538	0.02	0.08	1.47	562
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33	0.37	4.58	0.00	0.00	1.01	1.01	0.00	0.24	0.24	—	1,017	1,017	0.05	0.04	0.10	1,030
Vendor	0.02	0.64	0.30	< 0.005	0.01	0.15	0.15	< 0.005	0.04	0.04	—	538	538	0.02	0.08	0.04	561
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.26	3.14	0.00	0.00	0.65	0.65	0.00	0.15	0.15	—	674	674	0.03	0.02	1.11	684
Vendor	0.01	0.42	0.20	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	352	352	0.01	0.05	0.42	367
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.57	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.18	113
Vendor	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.2	58.2	< 0.005	0.01	0.07	60.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.6. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.26	10.6	13.9	0.02	0.42	—	0.42	0.39	—	0.39	—	1,993	1,993	0.08	0.02	—	2,000
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26	10.6	13.9	0.02	0.42	—	0.42	0.39	—	0.39	—	1,993	1,993	0.08	0.02	—	2,000
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	6.93	9.10	0.01	0.28	—	0.28	0.25	—	0.25	—	1,303	1,303	0.05	0.01	—	1,307
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.27	1.66	< 0.005	0.05	—	0.05	0.05	—	0.05	—	216	216	0.01	< 0.005	—	216
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33	0.34	5.40	0.00	0.00	1.01	1.01	0.00	0.24	0.24	—	1,073	1,073	0.05	0.04	3.93	1,089
Vendor	0.02	0.61	0.30	< 0.005	0.01	0.15	0.15	< 0.005	0.04	0.04	—	538	538	0.02	0.08	1.47	562
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33	0.37	4.58	0.00	0.00	1.01	1.01	0.00	0.24	0.24	—	1,017	1,017	0.05	0.04	0.10	1,030

Vendor	0.02	0.64	0.30	< 0.005	0.01	0.15	0.15	< 0.005	0.04	0.04	—	538	538	0.02	0.08	0.04	561
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.26	3.14	0.00	0.00	0.65	0.65	0.00	0.15	0.15	—	674	674	0.03	0.02	1.11	684
Vendor	0.01	0.42	0.20	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	352	352	0.01	0.05	0.42	367
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.57	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	112	112	0.01	< 0.005	0.18	113
Vendor	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.2	58.2	< 0.005	0.01	0.07	60.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	10.2	13.9	0.02	0.37	—	0.37	0.34	—	0.34	—	1,993	1,993	0.08	0.02	—	2,000
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	10.2	13.9	0.02	0.37	—	0.37	0.34	—	0.34	—	1,993	1,993	0.08	0.02	—	2,000
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00



Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	4.22	5.75	0.01	0.15	—	0.15	0.14	—	0.14	—	827	827	0.03	0.01	—	830
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.77	1.05	< 0.005	0.03	—	0.03	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.30	5.01	0.00	0.00	1.01	1.01	0.00	0.24	0.24	—	1,051	1,051	0.04	0.04	3.56	1,067
Vendor	0.02	0.58	0.28	< 0.005	0.01	0.15	0.15	< 0.005	0.04	0.04	—	528	528	0.02	0.08	1.43	553
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.34	4.28	0.00	0.00	1.01	1.01	0.00	0.24	0.24	—	997	997	0.05	0.04	0.09	1,009
Vendor	0.02	0.61	0.29	< 0.005	0.01	0.15	0.15	< 0.005	0.04	0.04	—	529	529	0.02	0.08	0.04	552
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.15	1.86	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	420	420	0.02	0.02	0.64	425
Vendor	0.01	0.25	0.12	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	219	219	0.01	0.03	0.26	229
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	69.5	69.5	< 0.005	< 0.005	0.11	70.4

Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.3	36.3	< 0.005	0.01	0.04	37.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.8. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	10.2	13.9	0.02	0.37	—	0.37	0.34	—	0.34	—	1,993	1,993	0.08	0.02	—	2,000
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	10.2	13.9	0.02	0.37	—	0.37	0.34	—	0.34	—	1,993	1,993	0.08	0.02	—	2,000
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	4.22	5.75	0.01	0.15	—	0.15	0.14	—	0.14	—	827	827	0.03	0.01	—	830
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.77	1.05	< 0.005	0.03	—	0.03	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.30	5.01	0.00	0.00	1.01	1.01	0.00	0.24	0.24	—	1,051	1,051	0.04	0.04	3.56	1,067
Vendor	0.02	0.58	0.28	< 0.005	0.01	0.15	0.15	< 0.005	0.04	0.04	—	528	528	0.02	0.08	1.43	553
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.34	4.28	0.00	0.00	1.01	1.01	0.00	0.24	0.24	—	997	997	0.05	0.04	0.09	1,009
Vendor	0.02	0.61	0.29	< 0.005	0.01	0.15	0.15	< 0.005	0.04	0.04	—	529	529	0.02	0.08	0.04	552
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.15	1.86	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	420	420	0.02	0.02	0.64	425
Vendor	0.01	0.25	0.12	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	219	219	0.01	0.03	0.26	229
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	69.5	69.5	< 0.005	< 0.005	0.11	70.4
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.3	36.3	< 0.005	0.01	0.04	37.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.72	6.01	7.59	0.01	0.13	—	0.13	0.12	—	0.12	—	1,007	1,007	0.04	0.01	—	1,011
Architectural Coatings	6.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.01	7.59	0.01	0.13	—	0.13	0.12	—	0.12	—	1,007	1,007	0.04	0.01	—	1,011
Architectural Coatings	6.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	1.42	1.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	237	237	0.01	< 0.005	—	238
Architectural Coatings	1.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.26	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	39.3	39.3	< 0.005	< 0.005	—	39.4
Architectural Coatings	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	1.00	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	210	210	0.01	0.01	0.71	213
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.86	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	199	199	0.01	0.01	0.02	202
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.7	47.7	< 0.005	< 0.005	0.07	48.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.89	7.89	< 0.005	< 0.005	0.01	8.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.10. Architectural Coating (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.72	6.01	7.59	0.01	0.13	—	0.13	0.12	—	0.12	—	1,007	1,007	0.04	0.01	—	1,011
Architectural Coatings	6.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.01	7.59	0.01	0.13	—	0.13	0.12	—	0.12	—	1,007	1,007	0.04	0.01	—	1,011
Architectural Coatings	6.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	1.42	1.79	< 0.005	0.03	—	0.03	0.03	—	0.03	—	237	237	0.01	< 0.005	—	238
Architectural Coatings	1.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.26	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	39.3	39.3	< 0.005	< 0.005	—	39.4
Architectural Coatings	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	1.00	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	210	210	0.01	0.01	0.71	213
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.86	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	199	199	0.01	0.01	0.02	202
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.02	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.7	47.7	< 0.005	< 0.005	0.07	48.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.89	7.89	< 0.005	< 0.005	0.01	8.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.41	1.07	12.4	0.03	0.02	2.73	2.75	0.02	0.69	0.71	—	3,021	3,021	0.14	0.12	10.2	3,070
Regional Shopping Center	1.46	0.73	7.70	0.01	0.01	1.33	1.34	0.01	0.34	0.35	—	1,523	1,523	0.11	0.08	4.97	1,553
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.87	1.79	20.1	0.04	0.03	4.06	4.09	0.03	1.03	1.06	—	4,543	4,543	0.25	0.19	15.2	4,623
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.40	1.17	11.4	0.03	0.02	2.73	2.75	0.02	0.69	0.71	—	2,894	2,894	0.15	0.12	0.26	2,935
Regional Shopping Center	1.44	0.79	7.54	0.01	0.01	1.33	1.34	0.01	0.34	0.35	—	1,462	1,462	0.12	0.08	0.13	1,489
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.84	1.96	18.9	0.04	0.03	4.06	4.09	0.03	1.03	1.06	—	4,356	4,356	0.27	0.20	0.39	4,424
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.24	0.20	2.03	< 0.005	< 0.005	0.47	0.47	< 0.005	0.12	0.12	—	461	461	0.02	0.02	0.69	468
Regional Shopping Center	0.20	0.11	1.05	< 0.005	< 0.005	0.18	0.18	< 0.005	0.04	0.05	—	180	180	0.01	0.01	0.26	184



Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.45	0.31	3.09	0.01	< 0.005	0.64	0.65	< 0.005	0.16	0.17	—	641	641	0.04	0.03	0.95	651

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.68	0.51	5.94	0.01	0.01	1.31	1.31	0.01	0.33	0.34	—	1,445	1,445	0.07	0.06	4.88	1,468
Regional Shopping Center	1.14	0.57	6.01	0.01	0.01	1.04	1.04	0.01	0.26	0.27	—	1,188	1,188	0.09	0.06	3.87	1,212
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.82	1.08	11.9	0.03	0.02	2.34	2.36	0.02	0.59	0.61	—	2,632	2,632	0.15	0.12	8.75	2,679
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.67	0.56	5.46	0.01	0.01	1.31	1.31	0.01	0.33	0.34	—	1,384	1,384	0.07	0.06	0.13	1,403
Regional Shopping Center	1.12	0.62	5.88	0.01	0.01	1.04	1.04	0.01	0.26	0.27	—	1,140	1,140	0.09	0.06	0.10	1,161

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.79	1.18	11.3	0.02	0.02	2.34	2.36	0.02	0.59	0.61	—	2,524	2,524	0.16	0.12	0.23	2,565
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.10	0.97	< 0.005	< 0.005	0.22	0.23	< 0.005	0.06	0.06	—	220	220	0.01	0.01	0.33	224
Regional Shopping Center	0.16	0.09	0.82	< 0.005	< 0.005	0.14	0.14	< 0.005	0.03	0.04	—	140	140	0.01	0.01	0.20	143
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.27	0.18	1.79	< 0.005	< 0.005	0.36	0.36	< 0.005	0.09	0.09	—	361	361	0.02	0.02	0.53	367

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	491	491	0.03	< 0.005	—	493
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	208	208	0.01	< 0.005	—	209

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	285	285	0.02	< 0.005	—	286
Total	—	—	—	—	—	—	—	—	—	—	—	984	984	0.07	0.01	—	988
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	491	491	0.03	< 0.005	—	493
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	208	208	0.01	< 0.005	—	209
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	285	285	0.02	< 0.005	—	286
Total	—	—	—	—	—	—	—	—	—	—	—	984	984	0.07	0.01	—	988
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	81.3	81.3	0.01	< 0.005	—	81.7
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	34.4	34.4	< 0.005	< 0.005	—	34.5
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	47.2	47.2	< 0.005	< 0.005	—	47.4
Total	—	—	—	—	—	—	—	—	—	—	—	163	163	0.01	< 0.005	—	164

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	495	495	0.04	< 0.005	—	497
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	208	208	0.01	< 0.005	—	209
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	285	285	0.02	< 0.005	—	286
Total	—	—	—	—	—	—	—	—	—	—	—	987	987	0.07	0.01	—	992
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	495	495	0.04	< 0.005	—	497
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	208	208	0.01	< 0.005	—	209
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	285	285	0.02	< 0.005	—	286
Total	—	—	—	—	—	—	—	—	—	—	—	987	987	0.07	0.01	—	992
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	81.9	81.9	0.01	< 0.005	—	82.3
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	34.4	34.4	< 0.005	< 0.005	—	34.5

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	47.2	47.2	< 0.005	< 0.005	—	47.4
Total	—	—	—	—	—	—	—	—	—	—	—	163	163	0.01	< 0.005	—	164

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.20	0.08	< 0.005	0.02	—	0.02	0.02	—	0.02	—	251	251	0.02	< 0.005	—	252
Regional Shopping Center	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.4	17.4	< 0.005	< 0.005	—	17.4
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.21	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	269	269	0.02	< 0.005	—	270
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.20	0.08	< 0.005	0.02	—	0.02	0.02	—	0.02	—	251	251	0.02	< 0.005	—	252
Regional Shopping Center	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.4	17.4	< 0.005	< 0.005	—	17.4

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.21	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	269	269	0.02	< 0.005	—	270
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.6	41.6	< 0.005	< 0.005	—	41.7
Regional Shopping Center	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.88	2.88	< 0.005	< 0.005	—	2.89
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	44.5	44.5	< 0.005	< 0.005	—	44.6

#### 4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.4	17.4	< 0.005	< 0.005	—	17.4
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.4	17.4	< 0.005	< 0.005	—	17.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.4	17.4	< 0.005	< 0.005	—	17.4
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.4	17.4	< 0.005	< 0.005	—	17.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.88	2.88	< 0.005	< 0.005	—	2.89
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.88	2.88	< 0.005	< 0.005	—	2.89

### 4.3. Area Emissions by Source

#### 4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
--------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.77	0.06	6.74	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Total	2.86	0.06	6.74	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.01	0.84	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.41	2.41	< 0.005	< 0.005	—	2.42
Total	0.48	0.01	0.84	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.41	2.41	< 0.005	< 0.005	—	2.42



### 4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.77	0.06	6.74	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Total	2.86	0.06	6.74	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscap Equipment	0.10	0.01	0.84	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.41	2.41	< 0.005	< 0.005	—	2.42
Total	0.48	0.01	0.84	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.41	2.41	< 0.005	< 0.005	—	2.42

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	5.65	38.1	43.8	0.58	0.01	—	62.5
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	1.57	10.5	12.1	0.16	< 0.005	—	17.3
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	7.21	48.6	55.9	0.74	0.02	—	79.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	5.65	38.1	43.8	0.58	0.01	—	62.5
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	1.57	10.5	12.1	0.16	< 0.005	—	17.3

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	7.21	48.6	55.9	0.74	0.02	—	79.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.93	6.31	7.25	0.10	< 0.005	—	10.4
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	0.26	1.74	2.00	0.03	< 0.005	—	2.86
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	1.19	8.05	9.25	0.12	< 0.005	—	13.2

#### 4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	4.52	30.5	35.0	0.47	0.01	—	50.0
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	1.25	8.42	9.67	0.13	< 0.005	—	13.8
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	5.77	38.9	44.7	0.59	0.01	—	63.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	4.52	30.5	35.0	0.47	0.01	—	50.0
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	1.25	8.42	9.67	0.13	< 0.005	—	13.8
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	5.77	38.9	44.7	0.59	0.01	—	63.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.75	5.05	5.80	0.08	< 0.005	—	8.28
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	0.21	1.39	1.60	0.02	< 0.005	—	2.29
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.96	6.44	7.40	0.10	< 0.005	—	10.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.5
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	6.24	0.00	6.24	0.62	0.00	—	21.8
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.5
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	6.24	0.00	6.24	0.62	0.00	—	21.8
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	29.5	0.00	29.5	2.95	0.00	—	103
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	3.86	0.00	3.86	0.39	0.00	—	13.5
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	1.03	0.00	1.03	0.10	0.00	—	3.62

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	4.89	0.00	4.89	0.49	0.00	—	17.1

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	6.99	0.00	6.99	0.70	0.00	—	24.4
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	1.87	0.00	1.87	0.19	0.00	—	6.55
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	8.86	0.00	8.86	0.89	0.00	—	31.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	6.99	0.00	6.99	0.70	0.00	—	24.4
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	1.87	0.00	1.87	0.19	0.00	—	6.55

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	8.86	0.00	8.86	0.89	0.00	—	31.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	1.16	0.00	1.16	0.12	0.00	—	4.05
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	0.31	0.00	0.31	0.03	0.00	—	1.08
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	1.47	0.00	1.47	0.15	0.00	—	5.13

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.57	0.57
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.57	0.57
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.57	0.57
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62



Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.57	0.57
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartmen ts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Emergency	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Total	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Total	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.01	0.04	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	4.57	4.57	< 0.005	< 0.005	0.00	4.58
Total	0.01	0.04	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	4.57	4.57	< 0.005	< 0.005	0.00	4.58

#### 4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Total	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Emergen Generator	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Total	0.82	3.67	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergen cy Generator	0.01	0.04	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	4.57	4.57	< 0.005	< 0.005	0.00	4.58
Total	0.01	0.04	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	4.57	4.57	< 0.005	< 0.005	0.00	4.58

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	12/3/2024	1/31/2025	5.00	44.0	—
Building Construction	Building Construction	2/1/2025	7/31/2026	5.00	390	—
Architectural Coating	Architectural Coating	8/1/2026	11/30/2026	5.00	86.0	—

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Building Construction	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	4.00	8.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	2.00	8.00	46.0	0.31

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Building Construction	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	4.00	8.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	2.00	8.00	46.0	0.31

### 5.3. Construction Vehicles

#### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	16.2	43.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	77.6	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	16.9	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.5	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

#### 5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	16.2	43.0	HHDT
Grading	Onsite truck	—	—	HHDT

Building Construction	—	—	—	—
Building Construction	Worker	77.6	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	16.9	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.5	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

### 5.4. Vehicles

#### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

### 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	160,056	53,352	16,539	5,513	—

### 5.6. Dust Mitigation

#### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	5,000	38.5	0.00	—

#### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

### 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Regional Shopping Center	0.00	0%
Enclosed Parking with Elevator	0.00	100%

### 5.8. Construction Electricity Consumption and Emissions Factors

#### kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	690	0.05	0.01
2025	0.00	690	0.05	0.01
2026	0.00	690	0.05	0.01

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	430	388	323	149,194	3,850	3,475	2,894	1,335,737
Regional Shopping Center	416	509	233	147,217	1,373	1,875	858	500,453
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

#### 5.9.2. Mitigated



Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	206	186	155	71,343	1,841	1,662	1,384	638,740
Regional Shopping Center	325	397	182	114,833	1,071	1,462	669	390,365
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
160056	53,352	16,539	5,513	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

### 5.11. Operational Energy Consumption

#### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	259,527	690	0.0489	0.0069	784,500
Regional Shopping Center	109,781	690	0.0489	0.0069	54,294
Enclosed Parking with Elevator	150,732	690	0.0489	0.0069	0.00

#### 5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	261,456	690	0.0489	0.0069	0.00
Regional Shopping Center	109,781	690	0.0489	0.0069	54,294
Enclosed Parking with Elevator	150,732	690	0.0489	0.0069	0.00

### 5.12. Operational Water and Wastewater Consumption

#### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	2,946,121	19,318
Regional Shopping Center	817,020	0.00
Enclosed Parking with Elevator	0.00	0.00

#### 5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
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Apartments Mid Rise	2,356,897	15,454
Regional Shopping Center	653,616	0.00
Enclosed Parking with Elevator	0.00	0.00

### 5.13. Operational Waste Generation

#### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	43.2	—
Regional Shopping Center	11.6	—
Enclosed Parking with Elevator	0.00	—

#### 5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	13.0	—
Regional Shopping Center	3.47	—
Enclosed Parking with Elevator	0.00	—

### 5.14. Operational Refrigeration and Air Conditioning Equipment

#### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

### 5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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### 5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	0.50	12.0	1,000	0.73

### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 8. User Changes to Default Data

Screen	Justification
Land Use	Project data per December 2023 site plans.
Construction: Construction Phases	Assumes approximate 24-month construction schedule.
Construction: Off-Road Equipment	Assumes construction equipment on worst-case day.
Construction: Trips and VMT	Assumes 14-cy haul truck capacity and 43 miles to disposal site.
Operations: Hearths	No woodstoves or fireplaces proposed.

**Exhibit B, Attachment 5: United  
States Fish and Wildlife Service  
Information for Planning and  
Consultation Resource List  
Case No. CPC-2023-4573-DB-CU-HCA**

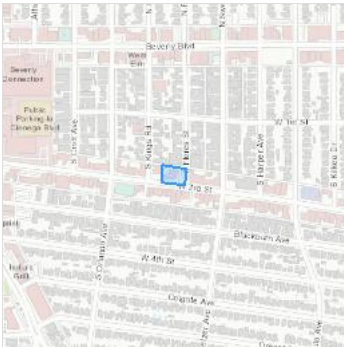
# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Los Angeles County, California



## Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440

(760) 431-5901

2177 Salk Avenue - Suite 250  
Carlsbad, CA 92008-7385

## Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

## Birds

NAME	STATUS
Coastal California Gnatcatcher <i>Poliophtila californica californica</i> Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/8178">https://ecos.fws.gov/ecp/species/8178</a>	Threatened

## Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).



For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p><b>Allen's Hummingbird</b> <i>Selasphorus sasin</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9637">https://ecos.fws.gov/ecp/species/9637</a></p>	Breeds Feb 1 to Jul 15
<p><b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Jan 1 to Aug 31
<p><b>Belding's Savannah Sparrow</b> <i>Passerculus sandwichensis beldingi</i>            This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/8">https://ecos.fws.gov/ecp/species/8</a></p>	Breeds Apr 1 to Aug 15
<p><b>Bullock's Oriole</b> <i>Icterus bullockii</i>            This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Mar 21 to Jul 25
<p><b>California Gull</b> <i>Larus californicus</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 1 to Jul 31
<p><b>California Thrasher</b> <i>Toxostoma redivivum</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jan 1 to Jul 31
<p><b>Clark's Grebe</b> <i>Aechmophorus clarkii</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jun 1 to Aug 31
<p><b>Common Yellowthroat</b> <i>Geothlypis trichas sinuosa</i>            This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/2084">https://ecos.fws.gov/ecp/species/2084</a></p>	Breeds May 20 to Jul 31
<p><b>Golden Eagle</b> <i>Aquila chrysaetos</i>            This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.  <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	Breeds Jan 1 to Aug 31
<p><b>Lawrence's Goldfinch</b> <i>Carduelis lawrencei</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9464">https://ecos.fws.gov/ecp/species/9464</a></p>	Breeds Mar 20 to Sep 20
<p><b>Long-eared Owl</b> <i>asio otus</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/3631">https://ecos.fws.gov/ecp/species/3631</a></p>	Breeds Mar 1 to Jul 15
<p><b>Nuttall's Woodpecker</b> <i>Picoides nuttallii</i>            This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/9410">https://ecos.fws.gov/ecp/species/9410</a></p>	Breeds Apr 1 to Jul 20
<p><b>Oak Titmouse</b> <i>Baeolophus inornatus</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9656">https://ecos.fws.gov/ecp/species/9656</a></p>	Breeds Mar 15 to Jul 15
<p><b>Olive-sided Flycatcher</b> <i>Contopus cooperi</i>            This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/3914">https://ecos.fws.gov/ecp/species/3914</a></p>	Breeds May 20 to Aug 31





### Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

#### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

#### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

### Fish hatcheries

There are no fish hatcheries at this location.

## Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

### Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

#### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

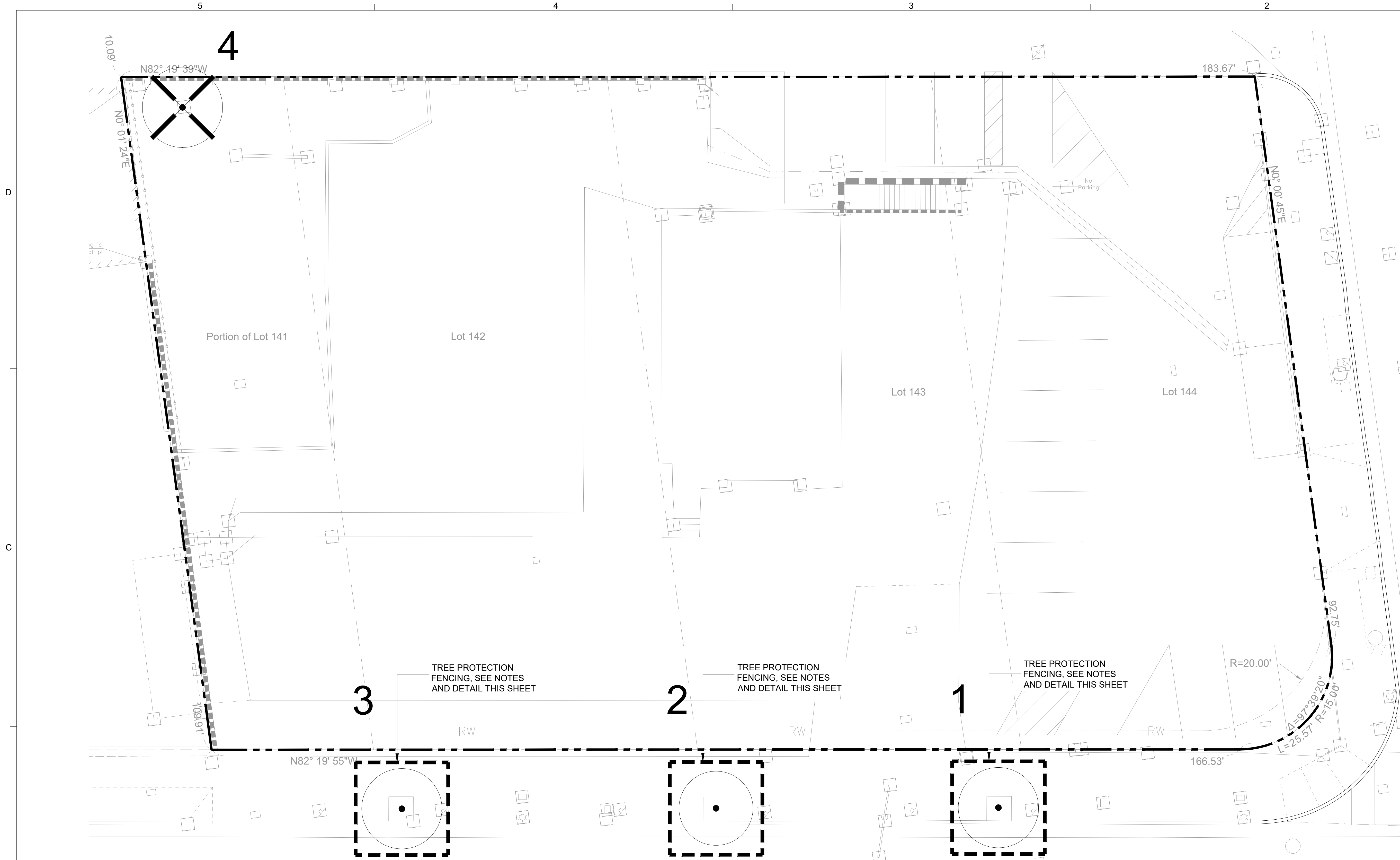
Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some

deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### **Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

**Exhibit B, Attachment 6: Tree  
Disposition Plan  
Case No. CPC-2023-4573-DB-CU-HCA**



### TREE DISPOSITION LEGEND

TOTAL EXISTING TREES	4 TOTAL
EXISTING TREE PROTECT IN PLACE	3 TOTAL
EXISTING TREE TO BE REMOVED	1 TOTAL

### TREE PROTECTION NOTES

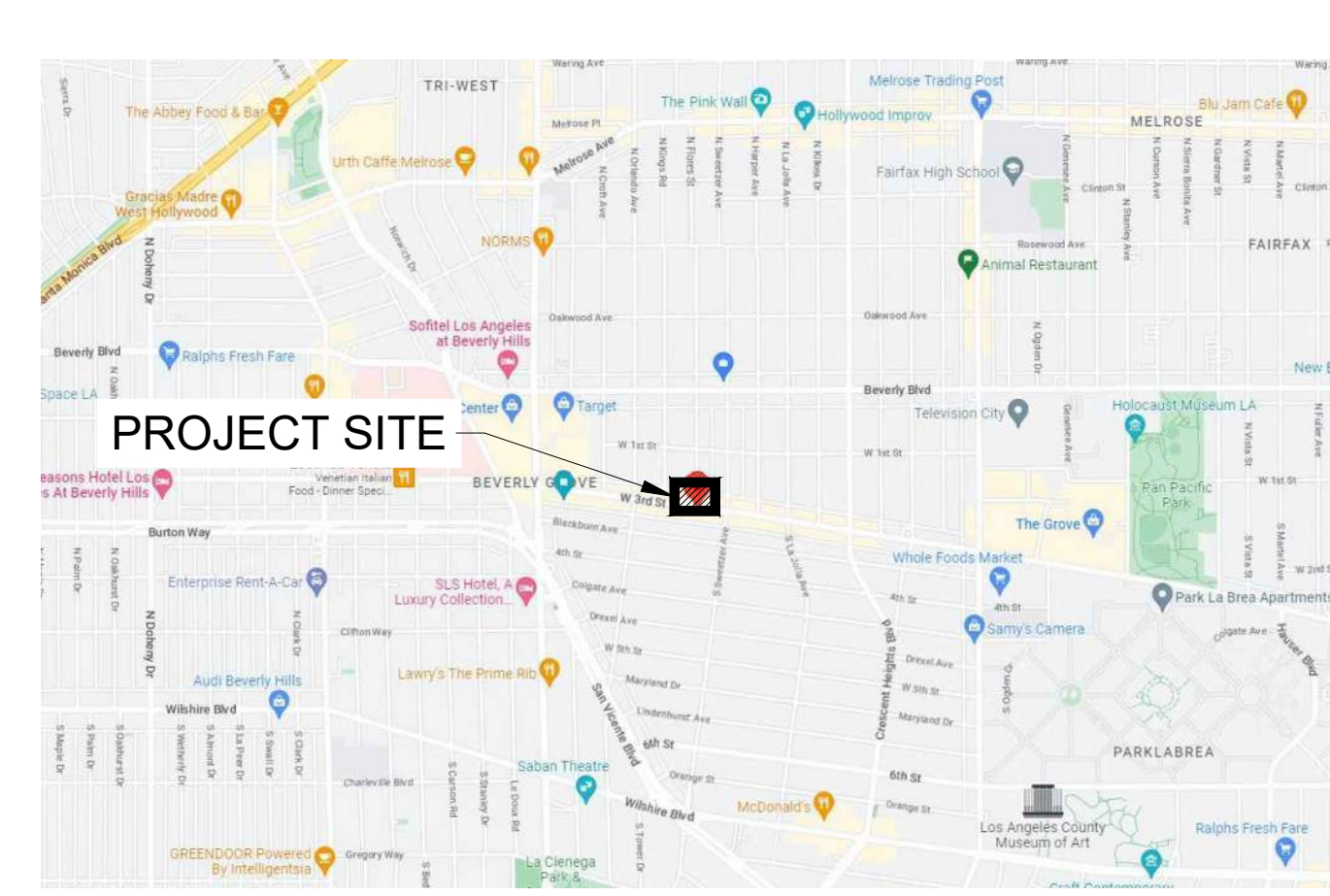
- TREES SHALL BE PROTECTED DURING THE CONSTRUCTION PHASE PER THE FOLLOWING NOTES, DETAILS, AND SPECIFICATIONS.
- EXISTING TREES TO REMAIN SHALL BE IDENTIFIED AND PRESERVED WITH PROTECTIVE FENCING TO FORM A TREE PROTECTION ZONE. THIS AREA ENCIRCLES THE TREE AT THE OUTER MOST EDGE OF CANOPY OR DRIFLINE AND PROTECTS THE ROOTS GROWING TYPICALLY WITHIN THE TOP 18" OF THE SOIL TO THE DRIFLINE AND BEYOND.
- PROTECTIVE FENCING SHALL BE INSTALLED PRIOR TO ANY EARTHWORK AND UNTIL WORK IS COMPLETE. FENCING SHALL BE FOUR FEET MIN. IN HEIGHT AND INSTALLED AT THE OUTER MOST EDGE OF THE DRIFLINE. THE TEMPORARY FENCING SHALL BE CHAIN LINK FENCING SUPPORTED BY 2" DIA STEEL STAKES.
- NO CONSTRUCTION OR STAGING EQUIPMENT IS ALLOWED WITHIN THE TREE PROTECTION ZONE, INCLUDING HEAVY EQUIPMENT THAT WILL COMPACT AND DAMAGE THE ROOTS.
- NO DISPOSAL OF CONSTRUCTION MATERIALS OR BY PRODUCTS INCLUDING PAINT, PLASTER, OR CHEMICAL SOLUTIONS IS ALLOWED WITHIN THE TREE PROTECTION ZONE.
- NATURAL OR PRECONSTRUCTION GRADE SHALL BE MAINTAINED WITHIN THE TREE PROTECTION ZONE. AT NO TIME SHALL SOIL BE IN CONTACT WITH THE TREE TRUNK ABOVE THE ROOT FLARE.
- WORK CONDUCTED IN THE GROUND WITHIN THE TREE PROTECTION ZONE SHALL BE ACCOMPLISHED WITH HAND TOOLS OR AN AIR SPADE.
- AVOID CUTTING ROOTS LARGER THAN 2" DIAMETER. CUTS SHOULD BE CLEAN AND MADE AT RIGHT ANGLES TO THE ROOTS. WHEN PRACTICAL, CUT ROOTS BACK TO A BRANCHING LATERAL ROOT. TRENCHES FOR PIPING SHALL BE BORED UNDER AT A MINIMUM OF 36" DEEP. CONTACT LANDSCAPE ARCHITECT IF MORE THAN 1/3 OF THE ROOT ZONE IS IMPACTED OR ROOTS GREATER THAN 2" WITHIN 5' OF THE TRUNK WILL BE CUT, TO ENSURE TREE STABILITY AND THAT HEALTH WILL NOT BE AFFECTED.
- VERIFY IF PRUNING FOR CLEARANCE IS NEEDED TO PREVENT DAMAGING BRANCHES WITH LARGE EQUIPMENT. ALL PRUNING SHALL BE IN ACCORDANCE WITH INDUSTRY STANDARDS, (INTERNATIONAL SOCIETY OF ARBORICULTURE OR ANZI A300), UNDER THE DIRECTION OF THE TREE EXPERT OF RECORD.
- DEMOLITION ACTIVITIES, INCLUDING ASPHALT REMOVAL, WHICH MUST OCCUR UNDER THE CANOPY OF THE PROTECTED TREE SHOULD BE ACCOMPLISHED BY HAND-HELD TOOLS OR SMALL MECHANICAL EQUIPMENT. IF LARGE EQUIPMENT IS ABSOLUTELY NECESSARY, THE BODY OF UNIT SHOULD BE SITUATED OUTSIDE OF THE CANOPIES AND CARE SHOULD BE TAKEN TO REACH IN BELOW THE DRIFLINE TO PULL OLD MATERIALS OUTWARD. IT IS RECOMMENDED THAT THE ASPHALT STAY IN PLACE UNTIL ITS REMOVAL IS NECESSARY.
- FLATWORK, IF PROPOSED UNDER THE CANOPY SHOULD BE DESIGNED TO STAY OUT OF THE CANOPY ROOT ZONE. TO MINIMIZE ROOT AND CANOPY IMPACTS, HANDHELD EQUIPMENT SHOULD BE USED PREPARE THE GROUND FOR FLATWORK UNDER THESE TREES' CANOPIES.
- IF CANOPY PRUNING OF PROTECTED STREET TREE IS FOUND TO BE NECESSARY, IT SHOULD ONLY BE PERFORMED BY A QUALIFIED ISA CERTIFIED ARBORIST OR ISA CERTIFIED TREE WORKER AND MONITORED BY THE TREE EXPERT OF RECORD.
- ROOTS THAT ARE TWO INCHES OR GREATER IN DIAMETER WITHIN THE TREE'S DRIFLINE (EDGE OF CANOPY) SHALL NOT BE CUT UNLESS SPECIFICALLY AUTHORIZED BY THE TREE EXPERT OF RECORD.
- EXPOSED ROOTS TO REMAIN, IF FOUND, SHOULD BE COVERED WITH BURLAP, CARPET REMNANTS OR OTHER MATERIAL THAT MAY BE KEPT MOIST UNTIL BACKFILL CAN BE PLACED.
- EQUIPMENT, MATERIALS, AND VEHICLES SHALL NOT BE STORED, PARKED, OR OPERATED WITHIN THE CANOPY ROOT ZONE OF PROTECTED STREET TREES TO REMAIN.
- EQUIPMENT WITH OVERHEAD EXHAUST SHALL NOT BE PLACED IN SUCH A MANNER AS TO SCORCH OVERHANGING BRANCHES OR FOLIAGE. SMALLER EQUIPMENT SHALL BE USED IN SUCH AREAS.
- CHAIN LINK TREE PROTECTION FENCING AT LEAST 5 FEET IN HEIGHT SHOULD BE INSTALLED AS ILLUSTRATED ON DETAIL 1 THIS SHEET AND A 'WARNING' SIGN IS PROMINENTLY DISPLAYED AT REGULAR INTERVALS AROUND THE FENCING LINE. THE SIGN WILL BE A MINIMUM OF 8.5 INCHES X 11 INCHES AND CLEARLY STATE THE FOLLOWING:

**TREE PROTECTION ZONE**  
 THIS FENCE SHALL NOT BE REMOVED

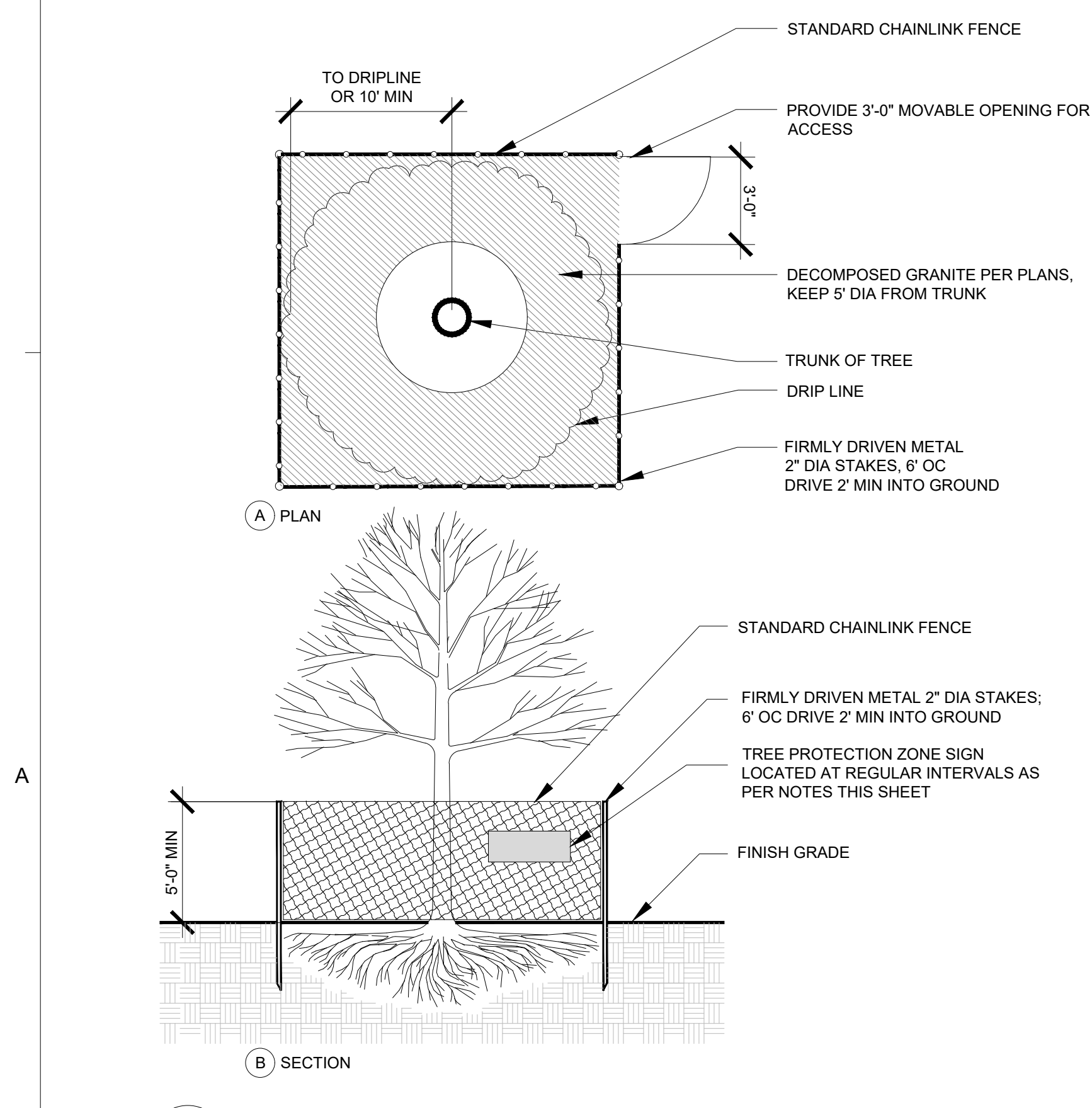
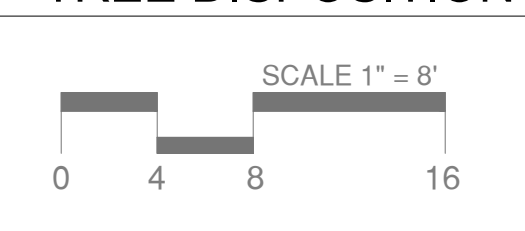
### TREE LEGEND

NUMBER	SCIENTIFIC NAME/ COMMON NAMES	PROTECTED (Y/N)	REMOVE (Y/N)
1	GEIJERA PARVIFLORA/ AUSTRALIAN WILLOW	Y	N
2	GEIJERA PARVIFLORA/ AUSTRALIAN WILLOW	Y	N
3	GEIJERA PARVIFLORA/ AUSTRALIAN WILLOW	Y	N
4	MORUS ALBA WHITE MULBERRY	N	Y

### VICINITY MAP

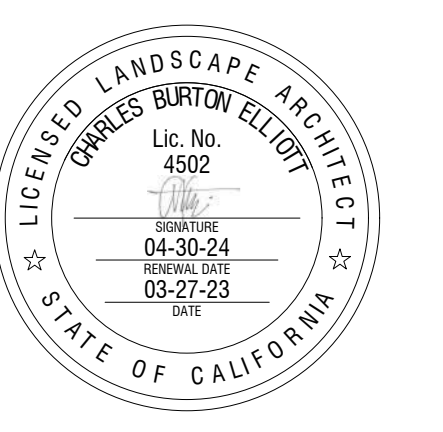


### TREE DISPOSITION PLAN



**1** STREET TREE PROTECTION FENCING  
SCALE: 1/4" = 1'-0"

### DISCIPLINE



### CLIENT/OWNER

**FLORES FUND, LLC**

888 S. FIGUEROA STREET  
SUITE 1900  
LOS ANGELES, CA. 90017

### PROJECT

**THIRD + FLORES**

### ISSUES & REVISIONS

NO.	DATE	DESCRIPTION

### NOT FOR CONSTRUCTION

- ISSUE AS: FIRST BLDG. DEPT. SUBMITTAL
- ISSUE DATE: 03-27-2023
- SCALE:
- PROJECT NUMBER: 2021-114
- SHEET TITLE

### TREE DISPOSITION PLAN

### SHEET NUMBER

**L001**

**Exhibit B, Attachment 7: Geotechnical  
Investigation**

**Case No. CPC-2023-4573-DB-CU-HCA**



# GEOTECHNICAL INVESTIGATION

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**PROPOSED MIXED-USE  
DEVELOPMENT  
8331-8349 WEST 3<sup>RD</sup> STREET  
LOS ANGELES, CALIFORNIA  
TRACT: TR 10389, LOTS: FR 141-144**



**GEOCON**  
WEST, INC.

GEOTECHNICAL  
ENVIRONMENTAL  
MATERIALS

PREPARED FOR

**FLORES FUND, LLC  
LOS ANGELES, CALIFORNIA**

**PROJECT NO. W1710-06-01**

**FEBRUARY 22, 2023**



Project No. W1710-06-01

February 22, 2023

Flores Fund, LLC

660 South Figueroa Street, 7<sup>th</sup> Floor

Los Angeles, California 90017

Attention: Mr. Daniel Taban

Subject: GEOTECHNICAL INVESTIGATION  
PROPOSED MIXED-USE DEVELOPMENT  
8331-8349 WEST 3<sup>RD</sup> STREET  
LOS ANGELES, CALIFORNIA  
TRACT: TR 10389, LOTS: FR 141-144

Dear Mr. Taban:

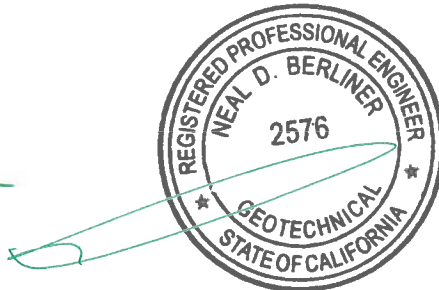
In accordance with your authorization of our proposal dated December 16, 2022, we have performed a geotechnical investigation for the proposed mixed-use development located at 8331-8349 West 3<sup>rd</sup> Street in the City of Los Angeles, California. The accompanying report presents the findings of our study, and our conclusions and recommendations pertaining to the geotechnical aspects of proposed design and construction. Based on the results of our investigation, it is our opinion that the site can be developed as proposed, provided the recommendations of this report are followed and implemented during design and construction.

If you have any questions regarding this report, or if we may be of further service, please contact the undersigned.

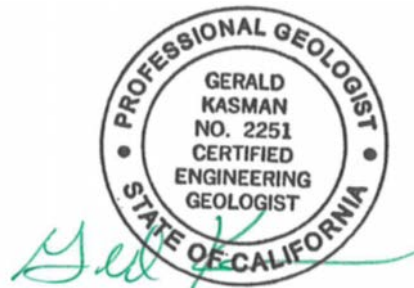
Very truly yours,

**GEOCON WEST, INC.**

John Stapleton  
Senior Staff Engineer



Neal Berliner  
GE 2576



Gerald A Kasman  
CEG 2251

(EMAIL) Addressee

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# GEOTECHNICAL INVESTIGATION

## 1. PURPOSE AND SCOPE

This report presents the results of a geotechnical investigation for the proposed mixed-use development located at 8331-8349 West 3<sup>rd</sup> Street in the City of Los Angeles, California (see Vicinity Map, Figure 1). The purpose of the investigation was to evaluate subsurface soil and geologic conditions underlying the site and, based on conditions encountered, to provide conclusions and recommendations pertaining to the geotechnical aspects of design and construction.

The scope of this investigation included a site reconnaissance, field exploration, laboratory testing, engineering analysis, and the preparation of this report. The site was explored on January 10, 2023, by excavating two 8-inch diameter borings to depths of approximately 25½ and 50½ feet below the existing ground surface using a truck-mounted hollow-stem auger drilling machine. Additional exploration was performed on January 12, 2023, by advancing two cone penetration tests (CPTs) to depths of approximately 75 and 119 feet below the existing ground surface using a truck-mounted 30-ton CPT rig. The approximate locations of the exploratory borings and CPTs are depicted on the Site Plan (see Figure 2). A detailed discussion of the field investigation, including boring logs and CPT soundings, is presented in Appendix A.

Laboratory tests were performed on selected soil samples obtained during the investigation to determine pertinent physical and chemical soil properties. Appendix B presents a summary of the laboratory test results.

The recommendations presented herein are based on analysis of the data obtained during the investigation and our experience with similar soil and geologic conditions. References reviewed to prepare this report are provided in the *List of References* section.

If project details vary significantly from those described herein, Geocon should be contacted to determine the necessity for review and possible revision of this report.

## 2. SITE AND PROJECT DESCRIPTION

The subject site is located at 8331-8349 West 3<sup>rd</sup> Street in the City of Los Angeles, California. The site was previously occupied by a two-story structure and asphalt paved parking lot. The above grade portions of the structure have been demolished; however, the building pad and basement of the prior structure are still present and surrounded by asphalt paving. The site is bounded by an alley and 3-story multi-family residential structures to the north, by South Flores Avenue to the east, by West 3<sup>rd</sup> Street to the south, and by a single-story commercial structure to the west. The site is relatively level, with the site vicinity gently sloping to the south south-west. Surface water drainage at the site appears to be by sheet flow along the existing ground contours to the city streets.

Based on the information provided by the Client, it is our understanding proposed development will consist of an 8-story structure comprised of 5 levels of multi-family residential units over two levels of parking and one level of retail consisting of approximately 14,000 square feet of retail space. It is anticipated that the structure will be constructed at or near present grade. The proposed development is depicted on the Site Plan (see Figure 2).

Based on the preliminary nature of the design at this time, wall and column loads were not available. It is anticipated that column loads for the proposed structure will be up to 750 kips, and wall loads will be up to 7.5 kips per linear foot.

Once the design phase and foundation loading configuration proceeds to a more finalized plan, the recommendations within this report should be reviewed and revised, if necessary. Any changes in the design, location or elevation of any structure, as outlined in this report, should be reviewed by this office. Geocon should be contacted to determine the necessity for review and possible revision of this report.

### **3. GEOLOGIC SETTING**

The site is located in the north-central portion of the Los Angeles Basin, a coastal plain bounded by the Santa Monica Mountains on the north, the Elysian Hills and Repetto Hills on the northeast, the Puente Hills and Whittier Fault on the east, the Palos Verdes Peninsula and Pacific Ocean on the west and south, and the Santa Ana Mountains and San Joaquin Hills on the southeast. The basin is underlain by a deep structural depression which has been filled by both marine and continental sedimentary deposits underlain by a basement complex of igneous and metamorphic composition. Regionally, the site is located within the northern portion of the Peninsular Ranges geomorphic province. This geomorphic province is characterized by northwest-trending physiographic and geologic features such as the nearby Newport-Inglewood Fault Zone.

### **4. SOIL AND GEOLOGIC CONDITIONS**

Based on our field investigation and published geologic maps of the area, the site is underlain by artificial fill and Holocene age alluvial fan deposits consisting of sand, silt, and clay (California Geological Survey, 2012). Detailed stratigraphic profiles of the materials encountered at the site are provided on the boring log in Appendix A.

#### **4.1 Artificial Fill**

Artificial fill was encountered in our field explorations to a maximum depth of 4 feet below existing ground surface. The artificial fill generally consists of grayish brown to black silt, sand, and clay. The artificial fill is characterized as soft to firm or medium dense, and dry to slightly moist. The fill is likely the result of past grading or construction activities at the site. Deeper fill may exist between excavations and in other portions of the site that were not directly explored.

## 4.2 Alluvial Fan Deposits

Holocene age alluvial fan deposits were encountered beneath the fill. The alluvial deposits consist primarily of gray to brown or reddish-brown interbedded clay, silt, and sand following a general fining-upwards trend. Below 35 feet, the alluvial soils transition to a brownish gray, gray, or bluish gray interbedded sand and silt with varying amounts of clay. The alluvium is characterized as slightly moist to wet and soft to hard or loose to very dense.

## 5. GROUNDWATER

Review of the Seismic Hazard Zone Report for the Hollywood Quadrangle (California Division of Mines and Geology [CDMG], 1998) indicates the historically highest groundwater level in the area is approximately 15 feet beneath the ground surface. Groundwater information presented in this document is generated from data collected in the early 1900's to the late 1990s. Based on current groundwater basin management practices, it is unlikely that groundwater levels will ever exceed the historic high levels.

Static groundwater was encountered in our field explorations at depths of 14 and 23½ feet below the existing ground surface. The measurements are typical of groundwater measurements performed in geotechnical boreholes; the depth to water at the time of construction may be higher or lower than what was observed in the boreholes. Additionally, a review of available data for an onsite groundwater monitoring well indicates that the depth to groundwater generally ranges between 14 and 16 feet below the ground surface (Baadar, 2022b)

Based on the reported historic high groundwater levels in the site vicinity (CDMG, 1998), the depth to groundwater encountered in our borings, and the depth of proposed construction, static groundwater is neither expected to be encountered during construction, nor have a detrimental effect on the project. However, demolition of the existing basement may result in excavations that are near existing groundwater elevations, and static groundwater or groundwater seepage may be encountered during construction. It is not uncommon for groundwater levels to vary seasonally or for groundwater seepage conditions to develop where none previously existed, especially in impermeable fine-grained soils which are heavily irrigated or after seasonal rainfall. In addition, recent requirements for stormwater infiltration could result in shallower seepage conditions in the immediate site vicinity. Proper surface drainage of irrigation and precipitation will be critical for future performance of the project. Recommendations for drainage are provided in the *Surface Drainage* section of this report (see Section 7.22).

## 6. GEOLOGIC HAZARDS

### 6.1 Surface Fault Rupture

The numerous faults in Southern California include Holocene-active, pre-Holocene, and inactive faults. The criteria for these major groups are based on criteria developed by the California Geological Survey (CGS, formerly known as CDMG) for the Alquist-Priolo Earthquake Fault Zone Program (CGS, 2018). By definition, a Holocene-active fault is one that has had surface displacement within Holocene time (about the last 11,700 years). A pre-Holocene fault has demonstrated surface displacement during Quaternary time (approximately the last 1.6 million years) but has had no known Holocene movement. Faults that have not moved in the last 1.6 million years are considered inactive.

The site is not within a state-designated Alquist-Priolo Earthquake Fault Zone (CGS, 2014; 2023a; 2023b) nor a city-designated Preliminary Fault Rupture Study Area (City of Los Angeles, 2023) for surface fault rupture hazards. No Holocene-active or pre-Holocene faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low. However, the site is located in the seismically active Southern California region, and could be subjected to moderate to strong ground shaking in the event of an earthquake on one of the many active Southern California faults. The faults in the vicinity of the site are shown in Figure 3, Regional Fault Map.

The closest surface trace of a Holocene-active fault to the site is the Hollywood Fault located approximately 1.3 miles to the north-northwest (CGS, 2014). Other nearby active faults are the Santa Monica Fault, the Newport-Inglewood Fault Zone, and the Raymond Fault, located approximately 1.4 miles west, 1.5 miles south-southwest, and 7.6 miles east-northeast of the site, respectively (Ziony and Jones, 1989; USGS, 2006). The active San Andreas Fault Zone is located approximately 39 miles northeast of the site.

Several buried thrust faults, commonly referred to as blind thrusts; underlie the Los Angeles Basin at depth. These faults are not exposed at the ground surface and are typically identified at depths greater than 3.0 kilometers. The October 1, 1987  $M_w$  5.9 Whittier Narrows earthquake and the January 17, 1994  $M_w$  6.7 Northridge earthquake were a result of movement on the Puente Hills Blind Thrust and the Northridge Thrust, respectively. These thrust faults and others in the Los Angeles area are not exposed at the surface and do not present a potential surface fault rupture hazard at the site; however, these deep thrust faults are considered active features capable of generating future earthquakes that could result in moderate to significant ground shaking at the site.



## 6.2 Seismicity

As with all of Southern California, the site has experienced historic earthquakes from various regional faults. The seismicity of the region surrounding the site was formulated based on research of an electronic database of earthquake data. The epicenters of recorded earthquakes with magnitudes equal to or greater than 5.0 in the site vicinity are depicted on Figure 4, Regional Seismicity Map. A partial list of moderate to major magnitude earthquakes that have occurred in the Southern California area within the last 100 years is included in the following table.

**LIST OF HISTORIC EARTHQUAKES**

Earthquake (Oldest to Youngest)	Date of Earthquake	Magnitude	Distance to Epicenter (Miles)	Direction to Epicenter
Near Redlands	July 23, 1923	6.3	64	E
Long Beach	March 10, 1933	6.4	39	SE
Tehachapi	July 21, 1952	7.5	74	NW
San Fernando	February 9, 1971	6.6	23	N
Whittier Narrows	October 1, 1987	5.9	17	E
Sierra Madre	June 28, 1991	5.8	25	ENE
Landers	June 28, 1992	7.3	111	E
Big Bear	June 28, 1992	6.4	89	E
Northridge	January 17, 1994	6.7	14	NW
Hector Mine	October 16, 1999	7.1	125	ENE
Ridgecrest	July 5, 2019	7.1	125	NNE

The site could be subjected to strong ground shaking in the event of an earthquake. However, this hazard is common in Southern California and the effects of ground shaking can be mitigated if the proposed structures are designed and constructed in conformance with current building codes and engineering practices.

## 6.3 Seismic Design Criteria

The following table summarizes the site-specific design criteria obtained from the 2022 California Building Code (CBC; Based on the 2021 International Building Code [IBC] and ASCE 7-16), Chapter 16 Structural Design, Section 1613 Earthquake Loads. The data was calculated using the online application *U.S. Seismic Design Maps*, provided by the Structural Engineers Association of California (SEAOC). The short spectral response uses a period of 0.2 second. We evaluated the Site Class based on the discussion in Section 1613.2.2 of the 2022 CBC and Table 20.3-1 of ASCE 7-16. The values presented on the following page are for the risk-targeted maximum considered earthquake ( $MCE_R$ ).

Although there are potentially liquefiable soils underlying the site, it is recommended that either ground improvement be performed or the structure be supported on a deepened foundation system which extends past the liquefiable soils. Therefore, a site response analysis is not anticipated to be required in accordance with ASCE 7-16, Section 20.3.1.

### 2019 CBC SEISMIC DESIGN PARAMETERS

Parameter	Value	2019 CBC Reference
Site Class	D	Section 1613.2.2
MCE <sub>R</sub> Ground Motion Spectral Response Acceleration – Class B (short), S <sub>S</sub>	2.085g	Figure 1613.2.1(1)
MCE <sub>R</sub> Ground Motion Spectral Response Acceleration – Class B (1 sec), S <sub>1</sub>	0.745g	Figure 1613.2.1(3)
Site Coefficient, F <sub>A</sub>	1	Table 1613.2.3(1)
Site Coefficient, F <sub>V</sub>	1.7*	Table 1613.2.3(2)
Site Class Modified MCE <sub>R</sub> Spectral Response Acceleration (short), S <sub>MS</sub>	2.085g	Section 1613.2.3 (Eqn 16-20)
Site Class Modified MCE <sub>R</sub> Spectral Response Acceleration – (1 sec), S <sub>M1</sub>	1.266g*	Section 1613.2.3 (Eqn 16-21)
5% Damped Design Spectral Response Acceleration (short), S <sub>DS</sub>	1.39g	Section 1613.2.4 (Eqn 16-22)
5% Damped Design Spectral Response Acceleration (1 sec), S <sub>D1</sub>	0.844g*	Section 1613.2.4 (Eqn 16-23)
*Per Supplement 3 of ASCE 7-16, a ground motion hazard analysis (GMHA) shall be performed for projects on Site Class “D” sites with 1-second spectral acceleration (S <sub>1</sub> ) greater than or equal to 0.2g, which is true for this site. However, Supplement 3 of ASCE 7-16 provides an exception stating that the GMHA may be waived provided that the parameter S <sub>M1</sub> is increased by 50% for all applications of S <sub>M1</sub> . The values for parameters S <sub>M1</sub> and S <sub>D1</sub> presented above have <b>not</b> been increased in accordance with Supplement 3 of ASCE 7-16.		

The table below presents the mapped maximum considered geometric mean (MCE<sub>G</sub>) seismic design parameters for projects located in Seismic Design Categories of D through F in accordance with ASCE 7-16.

### ASCE 7-16 PEAK GROUND ACCELERATION

Parameter	Value	ASCE 7-16 Reference
Mapped MCE <sub>G</sub> Peak Ground Acceleration, PGA	0.893g	Figure 22-9
Site Coefficient, F <sub>PGA</sub>	1.1	Table 11.8-1
Site Class Modified MCE <sub>G</sub> Peak Ground Acceleration, PGA <sub>M</sub>	0.983g	Section 11.8.3 (Eqn 11.8-1)

Deaggregation of the MCE peak ground acceleration was performed using the USGS online Unified Hazard Tool, 2014 Conterminous U.S. Dynamic edition (v4.2.0). The result of the deaggregation analysis indicates that the mean earthquake contributing to the MCE peak ground acceleration is characterized as a 6.78 magnitude event occurring at a hypocentral distance of 7.43 kilometers from the site.

Deaggregation was also performed for the Design Earthquake (DE) peak ground acceleration, and the result of the analysis indicates that the mean earthquake contributing to the DE peak ground acceleration is characterized as a 6.67 magnitude occurring at a hypocentral distance of 11.18 kilometers from the site.

Conformance to the criteria in the above tables for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a large earthquake occurs. The primary goal of seismic design is to protect life, not to avoid all damage, since such design may be economically prohibitive.

#### **6.4 Liquefaction Potential**

Liquefaction is a phenomenon in which loose, saturated, relatively cohesionless soil deposits lose shear strength during strong ground motions. Primary factors controlling liquefaction include intensity and duration of ground motion, gradation characteristics of the subsurface soils, in-situ stress conditions, and the depth to groundwater. Liquefaction is typified by a loss of shear strength in the liquefied layers due to rapid increases in pore water pressure generated by earthquake accelerations.

The current standard of practice, as outlined in the “Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction in California” and “Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California” requires liquefaction analysis to a depth of 50 feet below the lowest portion of the proposed structure. Liquefaction typically occurs in areas where the soils below the water table are composed of poorly consolidated, fine- to medium-grained, primarily sandy soil. In addition to the requisite soil conditions, the ground acceleration and duration of the earthquake must also be of a sufficient level to induce liquefaction.

A review of the State of California Seismic Hazard Zone Map for the Hollywood Quadrangle (CDMG, 1999) indicates that the site is in an area designated as having a potential for liquefaction. Additionally, the Los Angeles County Safety Element (Leighton, 1990) indicates the property is located within an area evaluated as having a potential for liquefaction. Static groundwater was encountered in our borings at depths of 14 and 23½ feet below the ground surface. The encountered groundwater depth of 14 feet below the ground surface was used as the historic high groundwater level in the liquefaction analysis.

Liquefaction analyses of the CPT soundings were performed using the program CLiq (Version 3.4.1.4) using the 2001 NCEER method of analysis. This semi-empirical method is based on correlations with the data collected from the CPT soundings.

Prior to analysis, the Standard Penetration Test (SPT) blow counts from boring B1 were compared with the blow counts estimated from CPT-1 based on the proximity of these two explorations. SPTs were performed in boring B1 at intervals of approximately 5 feet. In order to supplement the SPT blow count data, select California Modified Sampler blow count data were converted to equivalent SPT blow counts based on a correlation factor of 0.55 (Rogers, 2006). The field collected blow counts were corrected for hammer efficiency to N60 blow count values. The boring N60 values were compared with the N60 values generated by the program CPet-IT (Version 3.0.3.2). The comparisons are shown as Figure 5. It is our opinion that the boring and CPT N60 values show a reasonable correlation and that analysis of the liquefaction potential may be based on the CPT data.

The liquefaction analysis was performed for a Design Earthquake level by using a historic high groundwater table of 14 feet below the ground surface, a magnitude 6.67 earthquake, and a peak horizontal acceleration of 0.66 ( $\frac{2}{3}PGA_M$ ). The enclosed liquefaction analyses, included herein for CPTs 1 and 2, indicate that the alluvial soils below the historic high groundwater could be prone to up to approximately 1.5 inches liquefaction induced settlement during Design Earthquake ground motion. A summary of the anticipated liquefaction induced settlements is provided as Figure 6; calculations and output from CLiq are provided in Appendix C.

It is our understanding that the intent of the Building Code is to maintain “Life Safety” during Maximum Considered Earthquake level events. Therefore, additional analysis was performed to evaluate the potential for liquefaction during a MCE event. The structural engineer should evaluate the proposed structure for the anticipated MCE liquefaction induced settlements and verify that anticipated deformations would not cause the foundation system to lose the ability to support the gravity loads and/or cause collapse of the structure.

The liquefaction analysis was also performed for the Maximum Considered Earthquake level by using a historic high groundwater table of 14 feet below the ground surface, a magnitude 6.78 earthquake, and a peak horizontal acceleration of 0.98 ( $PGA_M$ ). The enclosed liquefaction analyses, included herein for CPTs 1 and 2, indicate that the alluvial soils below the historic high groundwater could be prone to up to approximately 3 inches of liquefaction induced settlement during Maximum Considered Earthquake ground motion. A summary of the anticipated liquefaction induced settlements is provided as Figure 7; calculations and output from CLiq are provided in Appendix C.

## **6.5 Slope Stability**

The topography at the site is relatively level to gently sloping to the south and west. The site is not located within a City of Los Angeles Hillside Grading Area or a Hillside Ordinance Area (City of Los Angeles, 2023). Additionally, the site is not located within an area identified as having a potential for seismic slope instability (CDMG, 1999; CGS, 2014). There are no known landslides near the site, nor is the site in the path of any known or potential landslides. Therefore, the potential for slope stability hazards to adversely affect the proposed development is considered low.

## **6.6 Earthquake-Induced Flooding**

Earthquake-induced flooding is inundation caused by failure of dams or other water-retaining structures due to earthquakes. Based on a review of the County of Los Angeles Safety Element (Leighton, 1990), the site is located within the Mulholland Dam inundation areas. However, this reservoir, as well as others in California, are continually monitored by various governmental agencies (such as the State of California Division of Safety of Dams and the U.S. Army Corps of Engineers) to guard against the threat of dam failure. Current design, construction practices, and ongoing programs of review, modification, or total reconstruction of existing dams are intended to ensure that all dams are capable of withstanding the maximum considered earthquake (MCE) for the site. Therefore, the potential for inundation at the site as a result of an earthquake-induced dam failure is considered low.

## **6.7 Tsunamis, Seiches, and Flooding**

The site is not located within a coastal area. Therefore, tsunamis are not considered a significant hazard at the site.

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up-gradient from the project site. Therefore, flooding resulting from a seismically induced seiche is considered unlikely.

The site is within an area of minimal flooding (Zone X) as defined by the Federal Emergency Management Agency (LACDPW, 2023; FEMA, 2023).

## **6.8 Oil Fields & Methane Potential**

Based on a review of the California Geologic Energy Management Division (CalGEM) Oil and Gas Well Finder website (CalGEM, 2023), the site is located within the limits of the Salt Lake Oilfield. The closest well to the site is Garbutt Oil Co.'s well number 6, idle oil and gas production well (API: 0403714622), located approximately 230 feet east of the site. Due to the voluntary nature of record reporting by the oil well drilling companies, wells may be improperly located or not shown on the location map and undocumented wells could be encountered during construction. Any wells encountered will need to be properly abandoned in accordance with the current requirements of the DOGGR.

The site is located within the boundaries of a city-designated Methane Zone (City of Los Angeles, 2023). A methane study is required for the proposed development. It is recommended that a qualified methane consultant be retained to perform the study and provide mitigation measures as necessary.

## **6.9 Subsidence**

Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content. The site is not located within an area of known ground subsidence. No large-scale extraction of groundwater, gas, oil, or geothermal energy is occurring or planned at the site or in the general site vicinity. There appears to be little or no potential for ground subsidence due to withdrawal of fluids or gases at the site.

## 7. CONCLUSIONS AND RECOMMENDATIONS

### 7.1 General

- 7.1.1 It is our opinion that neither soil nor geologic conditions were encountered during the investigation that would preclude the construction of the proposed development provided the recommendations presented herein are followed and implemented during design and construction.
- 7.1.2 Up to 4 feet of existing artificial fill was encountered during the site investigation. It is anticipated that deeper artificial fill may be present onsite due to the existing subterranean basement. It is unknown how the existing basement level was constructed; if sloping measures were used, there is a potential for a wedge of artificial fill to be present behind the basement walls. The existing fill encountered is believed to be the result of past grading and construction activities at the site. Deeper fill may exist in other areas of the site that were not directly explored. It is our opinion that the existing fill, in its present condition, is not suitable for direct support of proposed foundations or slabs. The existing fill and site soils are suitable for re-use as engineered fill provided the recommendations in the *Grading* section of this report are followed (see Section 7.4).
- 7.1.3 The client should be aware that a methane mitigation system is required for this project. A qualified methane consultant should be retained for the design of the mitigation system.
- 7.1.4 The enclosed liquefaction analyses indicate that the alluvial soils underlying the site could be susceptible to approximately 1.5 inches of settlement as a result of the Design Earthquake peak ground acceleration ( $\frac{2}{3}PG_{AM}$ ).
- 7.1.5 The results of laboratory testing indicate that the upper alluvial soils and existing artificial fill are highly compressible, which could yield excessive static and differential settlements upon application of foundation loads (see Figures B7 through B17).
- 7.1.6 The grading and foundation recommendations presented herein are intended to reduce the effects of settlement on proposed structures.
- 7.1.7 Based on these considerations, it is recommended that soil modification consisting of Rammed Aggregate Piers(RAP) be performed to improve the ground below the proposed foundation system. In accordance with the City of Los Angeles Research Report RR 26139, the RAP should maintain a minimum offset of 8 feet from the adjacent property line. Recommendations for Rammed Aggregate Pier (RAP) foundations are provided in Section 7.8.

- 7.1.8 Where the proposed structure will be supported on improved ground, it is recommended that the upper 4 feet of existing soils within the footprint area of the proposed structure be excavated and properly compacted for foundation and slab support, prior to implementation of RAP ground improvement. The engineered fill blanket should extend at least 3 feet beyond the edge of the building footprint. Deeper fill or soft soils encountered during site grading operations should be over-excavated as necessary at the direction of the Geotechnical Engineer. The limits of existing fill and/or soft soil removal will be verified by the Geocon representative during site grading operations. Recommendations for earthwork are provided in the *Grading* section of this report (see Section 7.4).
- 7.1.9 Subsequent to the recommended grading and ground improvement, the proposed structure may be supported on a reinforced concrete mat foundation system deriving support in the improved soils. The mat foundation system allows for more efficient construction when performed in conjunction with a methane mitigation system. In addition, the bottom of the mat can be shaped to channel the methane, simplifying the passive mitigation system. Recommendations for the design of a mat foundation system are provided in Section 7.9 of this report.
- 7.1.10 Where the proposed structure will be constructed beyond the allowable RAP limits (i.e. within 8 feet of the property line), the mat foundation may be designed as cantilevered from the edge of the RAP limits. The cantilevered portion of the mat foundation should be designed to not rely on the soil underlying that portion of the foundation.
- 7.1.11 As an alternative, the proposed structure may be supported on a deepened foundation system consisting of auger-cast pressure grouted displacement (APGD) piles. The APGD piles have the benefit of not generating soil spoils; however, the City of Los Angeles will require a comprehensive load testing program. The Client should be aware that APGD piles are designed and installed by a specialty geotechnical contractor. Recommendations for the design of APGD piles are provided in Section 7.10.
- 7.1.12 A methane barrier will be installed below the proposed structures and pile penetrations through these barriers are undesirable. Therefore, pile caps can be constructed on top of the proposed piles and a reinforced concrete mat foundation be utilized above the barriers, if possible. This would allow for a vertical load transfer of the mat foundation to the pile foundations without penetrating through the barriers. The mat foundation should be designed to derive vertical support from the piles and may develop lateral resistance at the foundation perimeter, as well as by friction beneath the mat foundation, if necessary. If the mat foundation is not structurally connected to the piles, the piles would not be able to contribute lateral capacity to the mat foundation.



- 7.1.13 The upper alluvial and fill soils as encountered during site exploration were very moist and the grading contractor should be aware that the existing soils are currently up to 20 percent above optimum moisture content. Recent rain events occurred before and during our site exploration, which could attribute to the high moisture contents of the near surface soils. Conditions could change seasonally. If the soils are more than 3 percent above the optimum moisture content at the time of construction the soils will likely require some spreading and drying activities in order to achieve proper compaction.
- 7.1.14 Soft alluvium is anticipated to be exposed throughout the excavation bottoms and these soils will likely be very moist to wet and subject to excessive pumping. Operation of rubber tire equipment on these subgrade soils may cause excessive disturbance of the soils, and equipment may sink and become stuck in the soft soils. Excavation activities to establish the finished subgrade elevation must be conducted carefully and methodically to avoid excessive disturbance to the subgrade. Track-mounted equipment should be considered. Stabilization of the bottom of the excavation may be required in order to provide a firm working surface upon which heavy equipment can operate. Recommendations for bottom stabilization and earthwork are provided in the *Grading* section of this report (see Section 7.4).
- 7.1.15 It is anticipated that stable excavations for the majority of the recommended grading associated with the proposed structure can be achieved with sloping measures. However, where excavations in close proximity to an adjacent property line and/or structure are required, special excavation measures will be necessary in order to maintain lateral support of offsite improvements. Excavation recommendations are provided in the *Temporary Excavations* section of this report (Section 7.19).
- 7.1.16 It is recommended that flexible utility connections be utilized for all rigid utilities to minimize or prevent damage to utilities from minor differential movements.
- 7.1.17 Foundations for small outlying structures, such as non-retaining block walls up to 6 feet in height, planter walls or trash enclosures, which will not be structurally tied-in to the proposed structure, may be supported conventional foundation deriving support on a minimum of 12 inches of newly placed engineered fill that extends at least 12 inches beyond the foundation footprint area. Where excavation and proper compaction cannot be performed, foundations may derive support directly in the undisturbed alluvial soils and should be deepened as necessary to maintain a minimum 12-inch embedment into the recommended bearing materials. If the soils exposed in the excavation bottom be soft or loose, compaction of the soft soils will be required prior to placing steel or concrete. Compaction of the foundation excavation bottom is typically accomplished with a compaction wheel or mechanical whacker and should be performed at the direction of the Geocon representative.

- 7.1.18 Where new paving is to be placed, it is recommended that all existing fill soils and soft alluvial soils be excavated and properly compacted for paving support. The client should be aware that excavation and compaction of all existing fill in the area of new paving is not required; however, paving constructed over existing uncertified fill or unsuitable soils may experience increased settlement and/or cracking, and may therefore have a shorter design life and increased maintenance costs. As a minimum, the upper 12 inches of soil should be scarified and properly compacted for paving support. Paving recommendations are provided in the *Preliminary Pavement Recommendations* section of this report (see Section 7.14).
- 7.1.19 Based on the shallow depth of groundwater and the fine-grained nature of underlying soils, stormwater infiltration is likely not feasible and not recommended for this project. It is suggested that stormwater be retained, filtered and discharged in accordance with the requirements of the local governing agency.
- 7.1.20 Once the design and foundation loading configuration for the proposed structure proceeds to a more finalized plan, the recommendations within this report should be reviewed and revised, if necessary. Based on the final foundation loading configurations, the potential for settlement should be re-evaluated by this office.
- 7.1.21 Any changes in the design, location or elevation, as outlined in this report, should be reviewed by this office. Geocon should be contacted to determine the necessity for review and possible revision of this report.

## **7.2 Soil and Excavation Characteristics**

- 7.2.1 The in-situ soils can be excavated with moderate effort using conventional excavation equipment. Some caving should be anticipated in unshored excavations, especially where saturated and/or granular soils are encountered.
- 7.2.2 It is the responsibility of the contractor to ensure that all excavations and trenches are properly shored and maintained in accordance with applicable OSHA rules and regulations to maintain safety and maintain the stability of existing adjacent improvements.
- 7.2.3 All onsite excavations must be conducted in such a manner that potential surcharges from existing structures, construction equipment, and vehicle loads are resisted. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation or vehicle load. Penetrations below this 1:1 projection will require special excavation measures such as sloping and shoring. Excavation recommendations are provided in the *Temporary Excavations* section of this report (see Section 7.19).

7.2.4 The soils encountered in the upper 5 feet during the investigation are considered to have a “medium” (EI =89) expansive potential and are considered to be “expansive” (expansion index [EI] of greater than 20) as defined by 2022 California Building Code (CBC) Section 1803.5.3. Recommendations presented herein assume that the new foundations and slabs will derive support in these materials.

### **7.3 Minimum Resistivity, pH, and Water-Soluble Sulfate**

7.3.1 Potential of Hydrogen (pH) and resistivity testing as well as chloride content testing were performed on representative samples of soil to generally evaluate the corrosion potential to surface utilities. The tests were performed in accordance with California Test Method Nos. 643 and 422 and indicate that the soils are considered “corrosive” with respect to corrosion of buried ferrous metals on site. Due to the corrosive potential of the soils, it is recommended that PVC, ABS or other approved plastic piping be utilized in lieu of cast-iron when in direct contact with the site soils. The results are presented in Appendix B (Figure B22) and should be considered for design of underground structures.

7.3.2 Laboratory tests were performed on representative samples of the site materials to measure the percentage of water-soluble sulfate content. Results from the laboratory water-soluble sulfate tests are presented in Appendix B (Figure B22) and indicate that the on-site materials possess a sulfate exposure class of “S0” to concrete structures as defined by 2022 CBC Section 1904 and ACI 318 Table 19.3.1.1.

7.3.3 Geocon West, Inc. does not practice in the field of corrosion engineering and mitigation. If corrosion sensitive improvements are planned, it is recommended that a corrosion engineer be retained to evaluate corrosion test results and incorporate the necessary precautions to avoid premature corrosion of buried metal pipes and concrete structures in direct contact with the soils.

### **7.4 Grading**

7.4.1 Grading is anticipated to include preparation of the building pad, excavation of site soils for proposed foundations and slabs, utility trenches, and placement of backfill for utility trenches.

7.4.2 A preconstruction conference should be held at the site prior to the beginning of excavation operations with the owner, contractor, civil engineer, geotechnical engineer, and building official in attendance. Special soil handling requirements can be discussed at that time.

7.4.3 Earthwork should be observed, and compacted fill tested by representatives of Geocon West, Inc. The existing fill and alluvial soil encountered during exploration are suitable for re-use as an engineered fill, provided any encountered oversized material (greater than 6 inches) and any encountered deleterious debris are removed.

- 7.4.4 Grading should commence with the removal of all existing vegetation and existing improvements from the area to be graded. Deleterious debris such as wood and root structures should be exported from the site and should not be mixed with the fill soils. Concrete should not be mixed with the fill soils unless approved by the Geotechnical Engineer; in accordance with City policy, concrete and asphalt is not permitted to be mixed into structural fill. All existing underground improvements planned for removal should be completely excavated and the resulting depressions properly backfilled in accordance with the procedures described herein. Once a clean excavation bottom has been established it must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon West, Inc.) and the City of Los Angeles Inspector.
- 7.4.5 Where the proposed structure will be supported on improved ground, it is recommended that the upper 4 feet of existing soils within the building footprint areas be excavated and properly compacted for foundation and slab support. The engineered fill blanket should extend at least 3 feet beyond the edge of the building footprint. Deeper fill or soft soils encountered during site grading operations should be over-excavated as necessary at the direction of the Geotechnical Engineer. The limits of existing fill and/or soft soil removal will be verified by the Geocon representative during site grading operations.
- 7.4.6 Excavations should be conducted as necessary to remove deeper artificial fill or soft alluvium at the direction of the Geotechnical Engineer (a representative of Geocon). The limits of existing fill and/or soft soil removal will be verified by the Geocon representative during site grading activities.
- 7.4.7 All excavations must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon).
- 7.4.8 The upper alluvial and existing fill soils encountered during the investigation are currently very moist and the contractors should be aware that the existing soils are currently up to 20 percent above optimum moisture content. Conditions could change seasonally. If the soils are in excess of 3 percent above optimum moisture content at the time of construction the soils will likely require some spreading and drying activities in order to achieve proper compaction.
- 7.4.9 Soft alluvium is anticipated to be exposed throughout the excavation bottoms and these soils will likely be very moist to wet and subject to excessive pumping. Rubber tire equipment should not be allowed in the excavation bottom until it is stabilized or extensive soil disturbance could result. It is suggested that excavation and grading be performed during the summer season to promote moisture control of the soils. In addition, the use of track equipment should be considered to minimize disturbance to the soils at the excavation bottom.

- 7.4.10 Bottom stabilization, if necessary, may be achieved placing a thin lift of 3- to 6-inch-diameter crushed angular rock into the soft excavation bottom. The use of crushed concrete will also be acceptable. The crushed rock should be spread thinly across the excavation bottom and pressed into the soils by track rolling or wheel rolling with heavy equipment. It is very important that voids between the rock fragments are not created so the rock must be thoroughly pressed or blended into the soils. All subgrade soils must be properly compacted and proof-rolled in the presence of the Geotechnical Engineer (a representative of Geocon West, Inc.).
- 7.4.11 An additional method of subgrade stabilization would be to place a minimum 12-inch thick layer of aggregate base over Tensar InterAx NX850 geogrid or equivalent extruded (nonwoven) geotextile. The Tensar geogrids should be installed taught and should overlap in accordance with the manufacturer's recommendations. Prior to placing the geogrid, excessively soft or wet materials should be removed and the resulting excavation bottom should be free of loose material. Non-vibratory compaction methods should be used for compaction of the base material. The aggregate base should be compacted to a dry density of at least 95 percent of the laboratory maximum density near the optimum moisture. If pumping of the subgrade continues, a thicker layer of aggregate base may be placed. It is very important that subgrade stabilization be performed uniformly across the entire excavation bottom.
- 7.4.12 Soil additives, like lime or cement, can also be considered to reduce the moisture content, reduce the expansion potential, and stabilize the upper soils. Recommendations for soil stabilization through the use of lime or cement can be addressed under separate cover, if desired.
- 7.4.13 The City of Los Angeles Department of Building and Safety requires a minimum compactive effort of 95 percent of the laboratory maximum dry density in accordance with ASTM D 1557 (latest edition) where the soils to be utilized in the fill have less than 15 percent finer than 0.005 millimeter. Soils with more than 15 percent finer than 0.005 millimeter may be compacted to 90 percent of the laboratory maximum dry density in accordance with ASTM D 1557 (latest edition). Based on the nature of the site soils, all fill and backfill soils should be placed in horizontal loose layers approximately 6 to 8 inches thick, moisture conditioned to 2 to 3 percent above optimum moisture content and properly compacted to 90 percent of the laboratory maximum dry density in accordance with ASTM D 1557 (latest edition).
- 7.4.14 It is anticipated that stable excavations for the majority of the recommended grading associated with the proposed structure can be achieved with sloping measures. However, where excavations in close proximity to an adjacent property line and/or structure are required, special excavation measures will be necessary in order to maintain lateral support of offsite improvements. Excavation recommendations are provided in the *Temporary Excavations* section of this report (see Section 7.19).

- 7.4.15 Foundations for small outlying structures, such as non-retaining block walls up to 6 feet in height, planter walls or trash enclosures, which will not be structurally tied-in to the proposed structure, may be supported conventional foundation deriving support on a minimum of 12 inches of newly placed engineered fill that extends at least 12 inches beyond the foundation footprint area. Where excavation and proper compaction cannot be performed, foundations may derive support directly in the undisturbed alluvial soils and should be deepened as necessary to maintain a minimum 12-inch embedment into the recommended bearing materials. If the soils exposed in the excavation bottom be soft or loose, compaction of the soft soils will be required prior to placing steel or concrete. Compaction of the foundation excavation bottom is typically accomplished with a compaction wheel or mechanical whacker and should be performed at the direction of the Geocon representative.
- 7.4.16. Where new paving is to be placed, it is recommended that all existing fill and soft alluvium be excavated and properly compacted for paving support. As a minimum, the upper 12 inches of soil should be scarified, moisture conditioned to 2 to 3 percent above optimum moisture content, and compacted to at least 92 percent relative compaction, as determined by ASTM Test Method D 1557 (latest edition). Paving recommendations are provided in *Preliminary Pavement Recommendations* section of this report (see Section 7.14).
- 7.4.17 All imported fill shall be observed, tested, and approved by Geocon prior to bringing soil to the site. Rocks larger than 6 inches in diameter shall not be used in the fill. If necessary, import soils used as structural fill should have an expansion index less than 50 and corrosivity properties that are equally or less detrimental to that of the existing onsite soils (see Figure B22). Import soils placed in the building area should be placed uniformly across the building pad or in a manner that is approved by the Geotechnical Engineer (a representative of Geocon).
- 7.4.18 It is recommended that flexible utility connections be utilized for all rigid utilities to reduce or prevent damage to utilities from minor differential movements. Utility trenches should be properly backfilled in accordance with the following requirements. The pipe should be bedded with clean sands (Sand Equivalent greater than 30) to a depth of at least 1 foot over the pipe, and the bedding material must be inspected and approved in writing by the Geotechnical Engineer (a representative of Geocon). The use of gravel is not acceptable unless used in conjunction with filter fabric to prevent the gravel from having direct contact with soil. If gravel is used for trench bedding and shading (typical when seepage is present) it must be 3/16-inch rounded birds-eye rock in accordance with the City of LA plumbing department requirements. The remainder of the trench backfill may be derived from onsite soil or approved import soil, compacted as necessary, until the required compaction is obtained. The use of minimum 2-sack slurry as backfill is also acceptable (see Section 7.5). Prior to placing any bedding materials or pipes, the excavation bottom must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon)

- 7.4.19 All trench and foundation excavation bottoms must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon), prior to placing bedding sands, fill, steel, gravel, or concrete.

## **7.5 Controlled Low Strength Material (CLSM)**

- 7.5.1 Controlled Low Strength Material (CLSM) may be utilized in lieu of compacted soil as engineered fill where approved in writing by the Geotechnical Engineer. Where utilized within the City of Los Angeles use of CLSM is subject to the following requirements:

### **Standard Requirements**

1. CLSM shall be ready-mixed by a City of Los Angeles approved batch plant;
2. CLSM shall not be placed on uncertified fill, on incompetent natural soil, nor below water;
3. CLSM shall not be placed on a sloping surface with a gradient steeper than 5:1 (horizontal to vertical);
4. Placement of the CLSM shall be under the continuous inspection of a concrete deputy inspector;
5. The excavation bottom shall be accepted by the soil engineer and the City Inspector prior to placing CLSM.

### **Requirements for CLSM that will be used for support of footings**

1. The cement content of the CLSM shall not be less than 188 pounds per cubic yard (min. 2 sacks);
2. The excavation bottom must be level, cleaned of loose soils and approved in writing by Geocon prior to placement of the CLSM;
3. The ultimate compressive strength of the CLSM shall be no less than 100 pounds per square inch (psi) when tested on the 28th-day per ASTM D4832 (latest edition), Standard Test Method for Preparation and Testing of Controlled Low Strength Material Test Cylinders. Compression testing will be performed in accordance with ASTM C39 and City of Los Angeles requirements;
4. Samples of the CLSM will be collected during placement, a minimum of one test (two cylinders) for each 50 cubic yards or fraction thereof;
5. Overexcavation for CLSM placement shall extend laterally beyond the footprint of any proposed footings as required for placement of compacted fill, unless justified otherwise by the soil engineer that footings will have adequate vertical and horizontal bearing capacity.

## **7.6 Shrinkage**

- 7.6.1 Shrinkage results when a volume of material removed at one density is compacted to a higher density. A shrinkage factor of up to 25 percent should be anticipated when excavating and compacting the upper 5 feet of existing earth materials on the site to an average relative compaction of 92 percent.
- 7.4.2 If import soils will be utilized in the building pad, the soils must be placed uniformly and at equal thickness at the direction of the Geotechnical Engineer (a representative of Geocon West, Inc.). Soils can be borrowed from non-building pad areas and later replaced with imported soils.

## **7.7 Foundation Design – General**

- 7.7.1 Foundation excavations should be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon West, Inc.), prior to the placement of reinforcing steel and concrete to verify that the excavations and exposed soil conditions are consistent with those anticipated. If unanticipated soil conditions are encountered, foundation modifications may be required.
- 7.7.2 It is recommended that flexible utility connections be utilized for all rigid utilities to minimize or prevent damage to utilities from minor differential movements.
- 7.7.3 Due to the expansive nature of the on-site soils, the moisture content of untreated subgrade soils should be maintained at approximately 2 to 3 percent above optimum moisture content prior to and at the time of concrete placement. If the subgrade is allowed to dry out, presaturation and/or moisture conditioning and recompacting will be required.
- 7.7.4 This office should be provided a copy of the final construction plans so that the excavation recommendations presented herein could be properly reviewed and revised if necessary.
- 7.7.5 Once the design and foundation loading configurations for the proposed structures proceeds to a more finalized plan, the estimated settlements presented in this report should be reviewed and revised, if necessary. If the final foundation loading configurations are greater than the assumed loading conditions, the potential for settlement should be reevaluated by this office.

## **7.8 Rammed Aggregate Piers (RAP)**

- 7.8.1 It is recommended that soil improvement (e.g. Rammed Aggregate Piers) be performed below the proposed structure. Subsequent to construction of the Rammed Aggregate Pier (RAP) system, the proposed structure may be supported on a reinforced concrete mat foundation system deriving support in the improved soils. The foundation system should be designed to derive vertical support from the RAP improved soils and may develop lateral resistance at the foundation perimeter, as well as by friction beneath the foundations, if necessary.



- 7.8.2 The RAP system is based on soil improvement that consists of installing densified, aggregate columns to depths typically ranging up to about 25 feet below the proposed foundations. The system increases density and lateral stress in the surrounding soil and claims improvement in bearing capacity and settlement potential (potential settlement). RAP elements are constructed by creating shafts (commonly 30 inches in diameter) by drilling or displacement methods, and backfilling the open shaft with specially rammed/compacted, open graded crushed rock and Class 2 AB in 10- to 12-inch lifts. It should be noted that creating the shaft using the displacement method, advancing the shaft with a displacement mandrel, reduces the soil cuttings generated during the creation of the shaft. It is anticipated that the displacement method will be suitable for penetrations in the alluvial soils underlying the site.
- 7.8.3 The pattern and depth of ground improvements may vary depending upon the purposes of mitigation and stratigraphic conditions. The specialty contractor should design the RAP to incorporate allowable static settlements in accordance with the recommendations of the project structural engineer. The RAP contractor should evaluate the post-installation static and dynamic settlement within the remediation zone of the RAP. In addition, the project structural engineer should evaluate if the planned structure can tolerate the planned settlements after the installation of the RAP.
- 7.8.4 Spacing and diameter should be selected by the specialty contractor to obtain the necessary remediation as outlined herein. The RAP mitigation should extend laterally outside the edge of planned building structures, where practical. In accordance with the City of Los Angeles Research Report RR 26139, the RAP should maintain a minimum offset of 8 feet from the adjacent property line.
- 7.8.5 RAP design should be based on settlement criteria of a maximum combined static and seismic differential settlement of 1 inch between adjacent columns. The anticipated seismically induced differential settlement should be evaluated once the depth of the RAP ground improvement is established, as the ground improvement may mitigate some of the potentially liquefiable soil layers.
- 7.8.6 The RAP design package should be submitted to Geocon West, Inc. for review at least two weeks prior to mobilization for construction. Within the design package, the specialty contractor should outline a performance and load testing program to verify the effectiveness of the ground improvement and to confirm the bearing capacity of the improved soils with a full-scale load test. During the load testing, a representative of Geocon should be present to observe RAP installation and testing. The information obtained from the load testing should be used to modify the depth necessary to achieve design capacities, as well as develop installation criteria that can be used during construction.

7.8.7 Geocon should be present continuously during installation of the RAP improvements. Geocon’s QA/QC observations and documentation will include pier ID, location, depth, diameter, number of lifts, type of aggregate placed, lift thickness, and any changed conditions. Subsequent to testing, a report shall be submitted to LADBS Grading for review and approval. The report shall contain, but not be limited to, bearing capacity and settlement analysis without and with RAP, design calculations, range of pier diameters and depths, and acceptable aggregate types and size specifications. Requirements for an indicator RAP “Modulus Testing” program (field testing) shall be included in the soils report, showing the location of the tests, proposed test pier dimensions, and acceptable methods of installation.

## 7.9 Mat Foundation Design – Proposed Structure on RAP System

7.9.1 A reinforced concrete mat foundation system may be utilized for support of the proposed structure provided foundations derive support on the RAP ground improvement. All foundation excavations must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon), prior to placing steel or concrete.

7.9.2 Where the proposed structure will be constructed beyond the allowable RAP limits (i.e. within 8 feet of the property line), the mat foundation may be designed as cantilevered from the edge of the RAP limits. The cantilevered portion of the mat foundation should be designed to not rely on the soil underlying that portion of the foundation.

7.9.3 For preliminary design purposes, a bearing pressure of 6,000 pounds per square foot (psf) may be assumed; however, the design bearing pressure should be provided by the RAP contractor. The allowable bearing pressure may be increased by up to one-third for transient loads due to wind or seismic forces.

7.9.4 For preliminary design purposes, a modulus of subgrade reaction of 100 pounds per cubic inch (pci) may be utilized for design of the foundations. However, the RAP contractor should provide the structural engineer a revised modulus value incorporating the planned improvement techniques. Additionally, where a higher subgrade modulus is required beneath the foundation system, the site soils can be stabilized using lime, or can be replaced with a more granular imported soil. This value is a unit value for use with a 1-foot square footing. The modulus should be reduced in accordance with the following equation when used with larger foundations:

$$K_R = K \left[ \frac{B+1}{2B} \right]^2$$

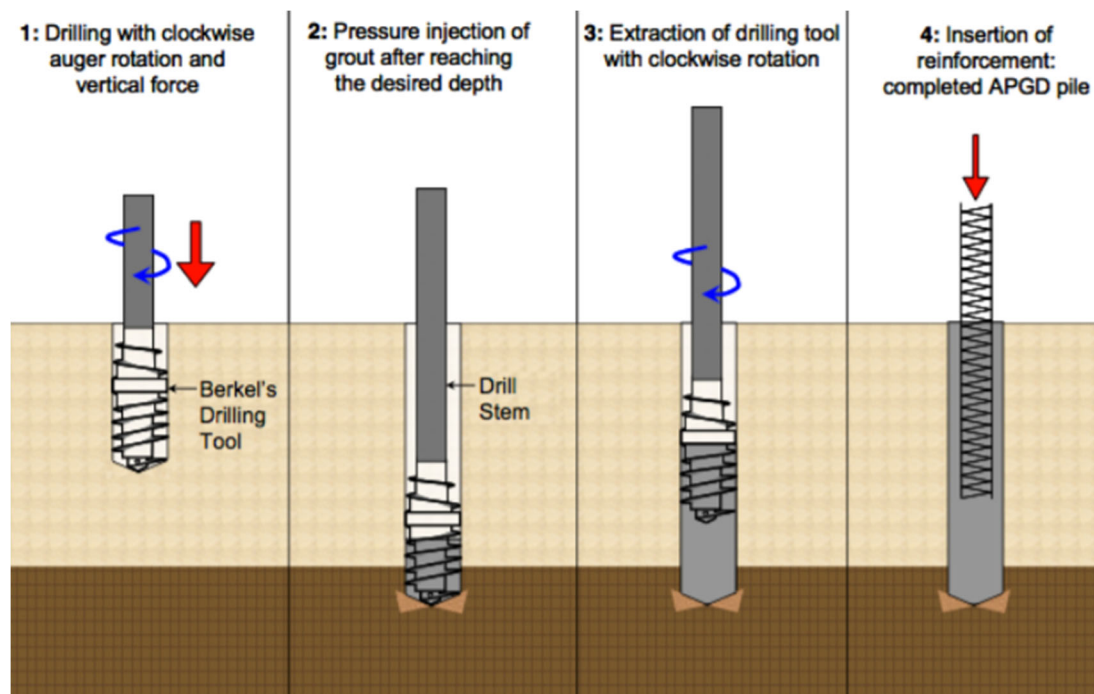
where:  $K_R$  = reduced subgrade modulus  
 $K$  = unit subgrade modulus  
 $B$  = foundation width (in feet)

7.9.5 The thickness of and reinforcement for the mat foundation should be designed by the project structural engineer.

7.9.6 For seismic design purposes, a coefficient of friction of 0.25 may be utilized between concrete slab and subgrade soils without a moisture barrier, and 0.15 for slabs underlain by a moisture barrier.

## 7.10 Auger-Cast Displacement Piles

7.10.1 As an alternative, it is recommended that the proposed structure be supported on Auger-Cast Pressure Grouted Displacement (APGD) piles deriving support in competent alluvium generally found at and below a depth of 35 feet. Auger-cast pressure grouted displacement (APGD) piles are installed by advancing a hollow-stem auger with a diameter equivalent to that of the pile to the desired pile tip elevation. The specialized hollow-stem auger bit displaces the penetrated soils laterally away from the auger as it is advanced, creating increased pile capacity and minimizing the amount of soil spoils. Once the desired pile tip elevation is achieved, grout is pumped under pressure from the tip of the auger as it is withdrawn and then the pile reinforcing steel is placed in the grout.



7.10.2 The Client should be aware that APGD piles are typically designed and installed by a specialty geotechnical contractor. The recommendations presented herein for the design of APGD piles may be used for preliminary design purposes.

7.10.3 For preliminary design purposes, 24-, 30-, and 36-inch diameter APGD piles have been assumed, and preliminary pile capacities are provided in the following table. The axial capacities include consideration of downdrag forces from liquefiable soils.

**AUGER-CAST GROUTED DISPLACEMENT  
PILE CAPACITIES**

Embedment Below Ground Surface (feet)	24-Inch Diameter Pile Capacity (kips)	30-Inch Diameter Pile Capacity (kips)	36-Inch Diameter Pile Capacity (kips)
80 feet	130	205	290
90 feet	205	315	435
100 feet	285	425	580

- 7.10.4 Single pile uplift capacity can be taken as 50 percent of the allowable downward capacity.
- 7.10.5 The axial capacity of the APGD piles should be verified by the design-build contractor and confirmed based upon pile load testing. Geocon should review, and if necessary, can assist the design-build contractor in developing a suitable testing program. During pile load testing, a representative of Geocon should be present to observe pile installation and testing. The information obtained from the pile load testing should be used to evaluate the need to modify pile lengths to achieve design capacities, as well as develop installation criteria that can be used during construction of production piles.
- 7.10.6 It is recommended that at least two pre-production piles or one percent of the production pile quantity be constructed, and load tested to at least 200 percent of the design load. Additional information on the indicator pile test program is provided in Appendix D.
- 7.10.7 During pile load testing, a representative of Geocon must be present to observe pile installation and testing procedures. The information obtained from the pile load testing program should be used to verify the suitability of the preliminary design parameters, or to modify pile design and installation criteria prior to construction of production piles.
- 7.10.8 Proof testing of production piles should also be performed by the design-build contractor and verified by the Geotechnical Engineer. It is recommended that at least 5 percent of production piles be constructed, and load tested to at least 160 percent of the design load. In addition, Thermal Integrity Profiling will be required for 10 percent of the production piles. The testing program and acceptance criteria should be configured to satisfy the requirements of the building official.

- 7.10.9 APGD pile construction should be performed under continuous observation of the Geotechnical Engineer (a representative of Geocon) to observe that soil conditions do not differ from those anticipated and to observe that construction of the APGD piles is performed in accordance with the project plans and specifications. Additional specifications for APGD installation are provided in Appendix D.
- 7.10.10 If piles are spaced at least at least 3 diameters on center, no reduction in axial capacity is considered necessary for group effects. If pile spacing is closer than three pile diameters, an evaluation for group effects including appropriate reductions should be incorporated into the pile design based on pile dimension, spacing, and the direction of loading.
- 7.10.11 For increased resistance to differential foundation movement and lateral drift, the pile tops should be interconnected in two horizontal directions with grade beams or tied with a structural slab. The project structural engineer should provide slab and grade beam design, reinforcement and spacing dependent on anticipated loading. However, for grade beams we recommend a minimum embedment depth below lowest adjacent pad grade of 24 inches and a minimum width of 12 inches. In addition, minimum reinforcement should consist of four No. 5 steel reinforcing bars; two placed near the top of the grade beam and two near the bottom.
- 7.10.12 APGD piles should be designed based on settlement criteria of a maximum combined static and seismic differential settlement of 1 inch between adjacent columns.

## **7.11 Lateral Design**

- 7.11.1 Resistance to lateral loading may be provided by friction acting at the base of foundations, slabs and by passive earth pressure. An allowable coefficient of friction of 0.25 may be used with the dead load forces in the undisturbed alluvial soils or engineered fill.
- 7.11.2 Passive earth pressure for the sides of foundations and slabs poured against the alluvial soils or properly compacted engineered fill above the groundwater table may be computed as an equivalent fluid having a density of 180 pcf with a maximum earth pressure of 1,800 pcf. Passive earth pressure for the sides of foundations poured against the alluvial soils below the groundwater table may be computed as an equivalent fluid having a density of 90 pcf with a maximum earth pressure of 900 pcf (these values have been adjusted for buoyant forces). When combining passive and friction for lateral resistance, the passive component should be reduced by one-third.

7.11.3 Ultimate lateral capacities for ¼ inch deflection of fixed and free-head drilled cast-in place piles are presented in the table below. No factors of safety have been applied to the lateral load values calculated to induce ¼-inch lateral deflection. Lateral capacities provided are for 24-, 30-, and 36-inch diameter drilled cast-in-place concrete piles, penetrating the earth materials encountered during the course of this investigation. Assumed as part of these lateral capacity calculations are a concrete modulus of elasticity of at least 3,000,000 psi.

<b>LATERAL LOAD CAPACITIES OF DRILLED CAST-IN-PLACE PILES</b>								
<b>FIXED HEAD (NO HEAD ROTATION)</b>								
PILE NUMBER	PILE DIAMETER (INCHES)	Lateral Load Capacity "P" (KIPS)	Maximum Positive Moment "Mp" (LAT FORCE =P)	Maximum Negative Moment "Mp" (LAT FORCE =P)	Depth to Max Pos. Moment (Feet)	Depth to Zero Moment (Feet)	Depth to Inflection Point (Feet)	MINIMUM PILE LENGTH FOR APPLICABILITY OF LATERAL DESIGN DATA (FEET)
1	24	43	1.4 P	-5.1 P	12	25	6.4	25
2	30	61	1.7 P	-6.1 P	15	30	7.6	30
3	36	81	1.9 P	-7.1 P	17	35	8.8	35
<b>FREE HEAD (HINGED)</b>								
PILE NUMBER	PILE DIAMETER (INCHES)	Lateral Load Capacity "P" (KIPS)	Maximum Moment "Mp" (LAT FORCE =P)	Depth to Zero Moment (Feet)	Depth to Maximum Moment (Feet)			
1	24	17	4.3 P	23	7			
2	30	25	5.2 P	27	9			
3	36	33	6.0 P	31	10			

Lateral capacities are based on 1/4-inch deflection.  
 Moment magnitudes are presented as a function of the applied lateral load "P".  
 "P" is entered in units of kips and the moment magnitude will be in units of kip-feet.  
 The maximum negative moment is at the rigid, pile to pile cap or grade beam connection at the top of the pile.

## 7.12 Miscellaneous Foundations

7.12.1 Foundations for small outlying structures, such as block walls up to 6 feet high, planter walls or trash enclosures, which will not be tied-in to the proposed structure, may be supported on conventional foundations bearing on a minimum of 12 inches of newly placed engineered fill which extends laterally at least 12 inches beyond the foundation area. Where excavation and proper compaction cannot be performed, foundations may derive support directly in the undisturbed alluvial soils and should be deepened as necessary to maintain a minimum of 12-inch embedment into recommended bearing materials.

7.12.2 If the soils exposed in the excavation bottom are soft, compaction of the soft soils will be required prior to placing steel or concrete. Compaction of the foundation excavation bottom is typically accomplished with a compaction wheel or mechanical whacker and must be observed and approved by a Geocon representative. Miscellaneous foundations may be designed for a bearing value of 1,500 psf, and should be a minimum of 12 inches in width, 24 inches in depth below the lowest adjacent grade and 12 inches into the recommended bearing material. The allowable bearing pressure may be increased by up to one-third for transient loads due to wind or seismic forces.

7.12.3 Foundation excavations should be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon West, Inc.), prior to the placement of reinforcing steel and concrete to verify that the excavations and exposed soil conditions are consistent with those anticipated.

### **7.13 Concrete Slabs-on-Grade**

7.13.1 Slabs-on-grade at the ground surface that may receive moisture-sensitive floor coverings or may be used to store moisture-sensitive materials should be underlain by a vapor retarder placed directly beneath the slab. The vapor retarder and acceptable permeance should be specified by the project architect or developer based on the type of floor covering that will be installed. The vapor retarder selection and design should be consistent with the guidelines presented in Section 9.3 of the American Concrete Institute's (ACI) Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials (ACI 302.2R-06) as well as ASTM E1745 and should be installed in general conformance with ASTM E 1643 (latest edition) and the manufacturer's recommendations. A minimum thickness of 15 mils extruded polyolefin plastic is recommended; vapor retarders which contain recycled content or woven materials are not recommended. The vapor retarder should have a permeance of less than 0.01 perms demonstrated by testing before and after mandatory conditioning. The vapor retarder should be installed in direct contact with the concrete slab with proper perimeter seal. If the California Green Building Code requirements apply to this project, the vapor retarder should be underlain by 4 inches of clean aggregate. It is important that the vapor retarder be puncture resistant since it will be in direct contact with angular gravel. As an alternative to the clean aggregate suggested in the Green Building Code, it is our opinion that the concrete slab-on-grade may be underlain by a vapor retarder over 4-inches of clean sand (sand equivalent greater than 30), since the sand will serve a capillary break and will minimize the potential for punctures and damage to the vapor barrier.

7.13.2 For seismic design purposes, a coefficient of friction of 0.25 may be utilized between concrete slabs and subgrade soils without a moisture barrier, and 0.15 for slabs underlain by a moisture barrier.

- 7.13.3 Exterior slabs, not subject to traffic loads, should be at least 4 inches thick and reinforced with No. 4 steel reinforcing bars placed 16 inches on center in both horizontal directions, positioned near the slab midpoint. Prior to construction of slabs, the upper 12 inches of subgrade should be moistened to 2 to 3 percent above optimum moisture content and properly compacted to at least 92 percent relative compaction, as determined by ASTM Test Method D 1557 (latest edition). Crack control joints should be spaced at intervals not greater than 10 feet and should be constructed using saw-cuts or other methods as soon as practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness. Construction joints should be designed by the project structural engineer.
- 7.13.4 Due to the expansive potential of the subgrade soils, the moisture content in the slab and foundation subgrade should be maintained at 2 to 3 percent above optimum moisture content prior to and at the time of concrete placement. Furthermore, consideration should be given to doweling slabs into adjacent curbs and foundations to minimize movements and offsets which could lead to a potential tripping hazard.
- 7.13.5 The recommendations of this report are intended to reduce the potential for cracking of slabs due to settlement. However, even with the incorporation of the recommendations presented herein, foundations, stucco walls, and slabs-on-grade may exhibit some cracking due to minor soil movement and/or concrete shrinkage. The occurrence of concrete shrinkage cracks is independent of the supporting soil characteristics. Their occurrence may be reduced and/or controlled by limiting the slump of the concrete, proper concrete placement and curing, and by the placement of crack control joints at periodic intervals, in particular, where re-entrant slab corners occur.

## **7.14 Preliminary Pavement Recommendations**

- 7.14.1 Where new paving is to be placed, it is recommended that all existing fill and soft alluvium materials be excavated and properly compacted for paving support. The client should be aware that excavation and compaction of all existing artificial fill and soft alluvium in the area of new paving is not required; however, paving constructed over existing uncertified fill or unsuitable alluvium material may experience increased settlement and/or cracking, and may therefore have a shorter design life and increased maintenance costs. As a minimum, the upper 12 inches of paving subgrade should be scarified, moisture conditioned to 2 to 3 percent above optimum moisture content, and properly compacted to at least 92 percent relative compaction, as determined by ASTM Test Method D 1557 (latest edition).
- 7.14.2 The following pavement sections are based on an assumed R-Value of 15. Once site grading activities are complete an R-Value should be obtained by laboratory testing to confirm the properties of the soils serving as paving subgrade, prior to placing pavement.



7.14.3 The Traffic Indices listed below are estimates. Geocon does not practice in the field of traffic engineering. The actual Traffic Index for each area should be determined by the project civil engineer. If pavement sections for Traffic Indices other than those listed below are required, Geocon should be contacted to provide additional recommendations. Pavement thicknesses were determined following procedures outlined in the *California Highway Design Manual* (Caltrans). It is anticipated that the majority of traffic will consist of automobile and large truck traffic.

### PRELIMINARY PAVEMENT DESIGN SECTIONS

Location	Estimated Traffic Index (TI)	Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)
Automobile Parking and Driveways	4.0	3.0	6.0
Trash Truck & Fire Lanes	7.0	4.0	13.5

7.14.4 Asphalt concrete should conform to Section 203-6 of the “*Standard Specifications for Public Works Construction*” (Green Book). Class 2 aggregate base materials should conform to Section 26-1.02A of the “*Standard Specifications of the State of California, Department of Transportation*” (Caltrans). The use of Crushed Miscellaneous Base (CMB) in lieu of Class 2 aggregate base is acceptable. Crushed Miscellaneous Base should conform to Section 200-2.4 of the “*Standard Specifications for Public Works Construction*” (Green Book).

7.14.5 Unless specifically designed and evaluated by the project structural engineer, where exterior concrete paving will be utilized for support of vehicles, it is recommended that the concrete be a minimum of 6 inches of concrete reinforced with No. 4 steel reinforcing bars placed 16 inches on center in both horizontal directions. Concrete paving supporting vehicular traffic should be underlain by a minimum of 4 inches of aggregate base and a properly compacted subgrade. The subgrade and base material should be compacted to 92 percent and 95 percent relative compaction, respectively, as determined by ASTM Test Method D 1557 (latest edition).

7.14.6 The performance of pavements is highly dependent upon providing positive surface drainage away from the edge of pavements. Ponding of water on or adjacent to the pavement will likely result in saturation of the subgrade materials and subsequent cracking, subsidence and pavement distress. If planters are planned adjacent to paving, it is recommended that the perimeter curb be extended at least 12 inches below the bottom of the aggregate base to minimize the introduction of water beneath the paving.

## 7.15 Retaining Wall Design

- 7.15.1 The recommendations presented below are generally applicable to the design of rigid concrete or masonry retaining walls having a maximum height of 5 feet. In the event that walls higher than 5 feet are planned, Geocon should be contacted for additional recommendations.
- 7.15.2 Retaining wall foundations may be designed in accordance with the recommendations provided in the *Foundation Design* sections of this report (see Section 7.7).
- 7.15.3 Retaining walls with a level backfill surface that are not restrained at the top should be designed utilizing a triangular distribution of pressure (active pressure). Restrained walls are those that are not allowed to rotate more than 0.001H (where H equals the height of the retaining portion of the wall in feet) at the top of the wall. Where walls are restrained from movement at the top, walls may be designed utilizing a triangular distribution of pressure (at-rest pressure). The table below presents recommended pressures to be used in retaining wall design, assuming that proper drainage will be maintained.

**RETAINING WALL WITH LEVEL BACKFILL SURFACE**

<b>HEIGHT OF RETAINING WALL (Feet)</b>	<b>ACTIVE PRESSURE EQUIVALENT FLUID PRESSURE (Pounds Per Cubic Foot)</b>	<b>AT-REST PRESSURE EQUIVALENT FLUID PRESSURE (Pounds Per Cubic Foot)</b>
Up to 5	30	77

- 7.15.4 The wall pressures provided above assume that the proposed retaining walls will support relatively undisturbed alluvial soils or engineered fill derived from onsite soils. If import soil will be used to backfill proposed retaining walls, revised earth pressures may be required to account for the geotechnical properties of the import soil used as engineered fill. This should be evaluated once the use of import soil is established. All imported fill shall be observed, tested, and approved by Geocon West, Inc. prior to bringing soil to the site.
- 7.15.5 The wall pressures provided above assume that the retaining wall will be properly drained preventing the buildup of hydrostatic pressure. If retaining wall drainage is not implemented, an at-rest equivalent fluid pressure of 100 pcf should be used in design of undrained, restrained walls for the full height of the wall. The value includes hydrostatic pressures plus buoyant lateral earth pressures. If a partially drained wall is proposed, Geocon should be contacted to provide additional recommendations.

- 7.15.6 Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent structures and should be designed for each condition as the project progresses. The surcharge pressure should be evaluated in accordance with the recommendations in Section 7.21 of this report.
- 7.15.7 In addition to the recommended earth pressure, the upper 10 feet of the retaining wall adjacent to the street or driveway areas should be designed to resist a uniform lateral pressure of 100 psf, acting as a result of an assumed 300 psf surcharge behind the wall due to normal street traffic. If the traffic is kept back at least 10 feet from the wall, the traffic surcharge may be neglected.
- 7.15.8 Seismic lateral forces will be required for any retaining walls in excess of 6 feet. Recommendations for seismic lateral forces will be provided under separate cover should they become necessary.

## **7.16 Retaining Wall Drainage**

- 7.16.1 Retaining walls not designed for hydrostatic pressure should be provided with a drainage system extended at least two-thirds the height of the wall. At the base of the drain system, a subdrain covered with a minimum of 12 inches of gravel should be installed, and a compacted fill blanket or other seal placed at the surface (see Figure 8). The clean bottom and subdrain pipe, behind a retaining wall, should be observed by the Geotechnical Engineer (a representative of Geocon), prior to placement of gravel or compacting backfill.
- 7.16.2 As an alternative, a plastic drainage composite such as Miradrain or equivalent may be installed in continuous, 4-foot-wide columns along the entire back face of the wall, at 8 feet on center. The top of these drainage composite columns should terminate approximately 18 inches below the ground surface, where either hardscape or a minimum of 18 inches of relatively cohesive material should be placed as a cap (see Figure 9). These vertical columns of drainage material would then be connected at the bottom of the wall to a collection panel or a 1-cubic-foot rock pocket drained by a 4-inch subdrain pipe.
- 7.16.3 Subdrainage pipes at the base of the retaining wall drainage system should outlet to an acceptable location via controlled drainage structures. Drainage should not be allowed to flow uncontrolled over descending slopes.

7.16.4 Moisture affecting below grade walls is one of the most common post-construction complaints. Poorly applied or omitted waterproofing can lead to efflorescence or standing water. Particular care should be taken in the design and installation of waterproofing to avoid moisture problems, or actual water seepage into the structure through any normal shrinkage cracks which may develop in the concrete walls, floor slab, foundations and/or construction joints. The design and inspection of the waterproofing is not the responsibility of the geotechnical engineer. A waterproofing consultant should be retained in order to recommend a product or method, which would provide protection to subterranean walls, floor slabs and foundations.

### **7.17 Elevator Pit Design**

7.17.1 The elevator pit slab and retaining wall should be designed by the project structural engineer. Elevator pit walls may be designed in accordance with the recommendations in the *Foundation Design and Retaining Wall Design* sections of this report (see Section 7.7 and 7.15).

7.17.2 Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent foundations and should be designed for each condition as the project progresses.

7.17.3 If retaining wall drainage is to be provided, the drainage system should be designed in accordance with the *Retaining Wall Drainage* section of this report (see Section 7.16).

7.17.4 Subdrainage pipes at the base of the retaining wall drainage system should outlet to a location acceptable to the building official.

7.17.5 It is suggested that the exterior walls and slab be waterproofed to prevent excessive moisture inside of the elevator pit. Waterproofing design and installation is not the responsibility of the geotechnical engineer.

### **7.18 Elevator Piston**

7.18.1 If a plunger-type elevator piston is installed for this project, a deep drilled excavation will be required. It is important to verify that the drilled excavation is not situated immediately adjacent to a foundation, or the drilled excavation could compromise the existing foundation support, especially if the drilling is performed subsequent to the foundation construction.

7.18.2 Casing will be required since some caving is expected in the drilled excavation. The contractor should be prepared to use casing and should have it readily available at the commencement of drilling activities. Continuous observation of the drilling and installation of the elevator piston by the Geotechnical Engineer (a representative of Geocon West, Inc.) is required.

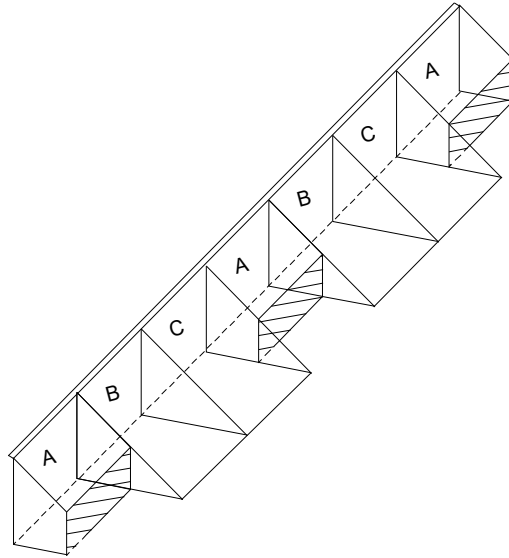
- 7.18.3 The annular space between the piston casing and drilled excavation wall should be filled with a minimum of 1½-sack slurry pumped from the bottom up. As an alternative, pea gravel may be utilized. The use of soil to backfill the annular space is not acceptable.

## **7.19 Temporary Excavations**

- 7.19.1 Excavations on the order of 4 feet in height may be required during grading operations. The excavations are expected to expose artificial fill and alluvial soils, which are suitable for vertical excavations up to 5 feet in height where loose soils or caving sands are not present, and where not surcharged by adjacent traffic or structures.
- 7.19.2 Vertical excavations greater than 5 feet or where surcharged by existing structures will require sloping or shoring measures in order to provide a stable excavation. Where sufficient space is available, temporary unsurcharged embankments could be sloped back at a uniform 1:1 slope gradient or flatter up to a maximum of 10 feet in height. A uniform slope does not have a vertical portion.
- 7.19.3 Performing continuous vertical excavations along property lines or adjacent to an existing structure could remove support from the property and/or structure which is not acceptable. Continuous vertical excavations along the public right of way should not exceed 2 feet in height. Excavations in close proximity to an adjacent property line or structure may require special excavation measures, such as slot-cutting or shoring. Recommendations for slot-cutting are provided in the following section.
- 7.19.4 Where temporary construction slopes are utilized, the top of the slope should be barricaded to prevent vehicles and storage loads at the top of the slope within a horizontal distance equal to the height of the slope. If the temporary construction slopes are to be maintained during the rainy season, berms are suggested along the tops of the slopes where necessary to prevent runoff water from entering the excavation and eroding the slope faces. Geocon personnel should inspect the soils exposed in the cut slopes during excavation so that modifications of the slopes can be made if variations in the soil conditions occur. All excavations should be stabilized within 30 days of initial excavation.

## **7.20 Slot Cutting**

- 7.20.1 It is recommended that the initial temporary excavation be sloped back at a uniform 1:1 (H:V) slope gradient or flatter for excavation of the existing soils to the necessary depth. The temporary excavation should not extend below the surcharge area of any adjacent foundations. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation. The temporary slope may then be excavated using the slot-cutting (see illustration on following page).



7.20.2 Alternate "A" slots of 4 feet in width may be worked. The remaining earth buttresses ("B" and "C" slots) should also be 4 feet in width. The wall, foundation, or backfill should be completed in the "A" slots to a point where support of existing structures is restored before the "B" slots are excavated. After completing the wall, foundation, or backfill in the "B" slots, finally the "C" slots may be excavated. Slot-cutting is not recommended for vertical excavations greater than 5 feet in height. A surcharge load of 300 pounds per square foot (psf) is included in the slot-cut calculation to account for traffic and pedestrian loads. The slot-cut calculation should be revised as needed for each surcharge condition as the project progresses. The slot-cut calculation is provided on the following page.

## Slot Cut Calculation

Input:

Height of Slots (H) 5.0 feet  
 Unit Weight of Soils (γ) 125.0 pcf  
 Friction Angle of Soils (φ) 30.0 degrees  
 Cohesion of Soils (c) 172.0 psf  
 Factor of Safety (FS) 1.25  
 Factor of Safety = Resistance Force/Driving Force

**Design Equations**  
 $b = H/(\tan \alpha)$   
 $A = 0.5 \cdot H \cdot b$   
 $W = 0.5 \cdot H \cdot b \cdot \gamma$  (per lineal foot of slot width)  
 $F_1 = d \cdot W \cdot (\sin \alpha)$   
 $R_1 = d \cdot [W \cdot (\cos \alpha) \cdot (\tan \phi) + (c \cdot b)]$   
 $R_2 = 2 \cdot [(0.5 \cdot H \cdot b) \cdot c]$   
**FS = Resistance Force/Driving Force**  
**FS = (R<sub>1</sub>+R<sub>2</sub>)/(F<sub>1</sub>)**

Surcharge Pressure:

Traffic Surcharge (q) 300.0 psf  
 Distance Away from Edge of Excavation (X) 0.0 feet

Failure Angle (α) degrees	Width of Failure Wedge (b) feet	Area of Failure Wedge (A) feet <sup>2</sup>	Weight of Failure Wedge (W) lbs/lineal foot	Driving Force Wedge + Surcharge per lineal foot of Slot Width	Resisting Force Failure Wedge per lineal foot of Slot Width	Resisting Force Side Resistance Force lbs	Allowable Width of Slots* (d) feet
45	5.0	13	1562.5	2165.5	1976.6	4300.0	5.9
46	4.8	12	1508.9	2127.4	1921.0	4152.5	5.6
47	4.7	12	1457.1	2088.6	1867.7	4009.8	5.4
48	4.5	11	1406.9	2049.2	1816.7	3871.7	5.2
49	4.3	11	1358.3	2009.2	1767.6	3737.9	5.0
50	4.2	10	1311.1	1968.5	1720.5	3608.1	4.9
51	4.0	10	1265.3	1927.3	1675.3	3482.1	4.7
52	3.9	10	1220.8	1885.5	1631.9	3359.5	4.6
53	3.8	9	1177.4	1843.1	1590.2	3240.3	4.5
54	3.6	9	1135.2	1800.1	1550.1	3124.1	4.5
55	3.5	9	1094.1	1756.6	1511.5	3010.9	4.4
56	3.4	8	1053.9	1712.5	1474.5	2900.4	4.4
57	3.2	8	1014.7	1668.0	1438.8	2792.5	4.3
58	3.1	8	976.4	1622.9	1404.6	2686.9	4.3
59	3.0	8	938.8	1577.3	1371.7	2583.7	4.3
60	2.9	7	902.1	1531.3	1340.1	2482.6	4.3
61	2.8	7	866.1	1484.7	1309.7	2383.5	4.4
62	2.7	7	830.8	1437.8	1280.5	2286.4	4.4
63	2.5	6	796.1	1390.3	1252.5	2191.0	4.5
64	2.4	6	762.1	1342.5	1225.6	2097.3	4.6
65	2.3	6	728.6	1294.3	1199.9	2005.1	4.8
66	2.2	6	695.7	1245.6	1175.2	1914.5	5.0
67	2.1	5	663.2	1196.6	1151.6	1825.2	5.3
68	2.0	5	631.3	1147.2	1129.0	1737.3	5.7
69	1.9	5	599.8	1097.5	1107.4	1650.6	6.2
70	1.8	5	568.7	1047.4	1086.7	1565.1	7.0

\* Width of Slots to achieve a minimum of 1.25 Factor of Safety, with a Maximum Allowable Slot Width of 8-feet.

Critical Slot Width with Factor of Safety equal or exceeding 1.25:

**d<sub>allow</sub> = 4.3 feet**

### 7.21 Surcharge from Adjacent Structures and Improvements

7.21.1 Additional pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent structures and should be designed for each condition as the project progresses.

7.21.2 It is recommended that line-load surcharges from adjacent wall footings, use horizontal pressures generated from NAV-FAC DM 7.2. The governing equations are:

$$\text{For } x/H \leq 0.4$$

$$\sigma_H(z) = \frac{0.20 \times \left(\frac{z}{H}\right)}{\left[0.16 + \left(\frac{z}{H}\right)^2\right]^2} \times \frac{Q_L}{H}$$

and

$$\text{For } x/H > 0.4$$

$$\sigma_H(z) = \frac{1.28 \times \left(\frac{x}{H}\right)^2 \times \left(\frac{z}{H}\right)}{\left[\left(\frac{x}{H}\right)^2 + \left(\frac{z}{H}\right)^2\right]^2} \times \frac{Q_L}{H}$$

where  $x$  is the distance from the face of the excavation or wall to the vertical line-load,  $H$  is the distance from the bottom of the footing to the bottom of excavation or wall,  $z$  is the depth at which the horizontal pressure is desired,  $Q_L$  is the vertical line-load and  $\sigma_H(z)$  is the horizontal pressure at depth  $z$ .

7.21.3 It is recommended that vertical point-loads, from construction equipment outriggers or adjacent building columns use horizontal pressures generated from NAV-FAC DM 7.2. The governing equations are:

$$\text{For } x/H \leq 0.4$$

$$\sigma_H(z) = \frac{0.28 \times \left(\frac{z}{H}\right)^2}{\left[0.16 + \left(\frac{z}{H}\right)^2\right]^3} \times \frac{Q_P}{H^2}$$

and

$$\text{For } x/H > 0.4$$

$$\sigma_H(z) = \frac{1.77 \times \left(\frac{x}{H}\right)^2 \times \left(\frac{z}{H}\right)^2}{\left[\left(\frac{x}{H}\right)^2 + \left(\frac{z}{H}\right)^2\right]^3} \times \frac{Q_P}{H^2}$$

then

$$\sigma'_H(z) = \sigma_H(z) \cos^2(1.1\theta)$$

where  $x$  is the distance from the face of the excavation/wall to the vertical point-load,  $H$  is distance from the outrigger/bottom of column footing to the bottom of excavation,  $z$  is the depth at which the horizontal pressure is desired,  $Q_P$  is the vertical point-load,  $\sigma_H(z)$  is the horizontal pressure at depth  $z$ ,  $\theta$  is the angle between a line perpendicular to the excavation/wall and a line from the point-load to location on the excavation/wall where the surcharge is being evaluated, and  $\sigma_H(z)$  is the horizontal pressure at depth  $z$ .



## **7.22 Surface Drainage**

- 7.22.1 Proper surface drainage is critical to the future performance of the project. Uncontrolled infiltration of irrigation excess and storm runoff into the soils can adversely affect the performance of the planned improvements. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the original designed engineering properties. Proper drainage should be maintained at all times.
- 7.22.2 All site drainage should be collected and controlled in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundations. The site should be graded and maintained such that surface drainage is directed away from structures in accordance with 2022 CBC 1804.4 or other applicable standards. In addition, drainage should not be allowed to flow uncontrolled over any descending slope. Planters which are located adjacent to foundations should be sealed to prevent moisture intrusion into the soils providing foundation support. Landscape irrigation is not recommended within 5 feet of foundations except when enclosed in protected planters.
- 7.22.3 Positive site drainage should be provided away from structures, pavement, and the tops of slopes to swales or other controlled drainage structures. The building pad and pavement areas should be fine graded such that water is not allowed to pond.
- 7.22.4 Landscaping planters immediately adjacent to paved areas are not recommended due to the potential for surface or irrigation water to infiltrate the pavement's subgrade and base course. Either a subdrain, which collects excess irrigation water and transmits it to drainage structures, or an impervious above-grade planter boxes should be used. In addition, where landscaping is planned adjacent to the pavement, it is recommended that consideration be given to providing a cutoff wall along the edge of the pavement that extends at least 12 inches below the base material.

## **7.23 Plan Review**

- 7.23.1 Grading, foundation, and, if applicable, shoring plans should be reviewed by the Geotechnical Engineer (a representative of Geocon West, Inc.), prior to finalization to verify that the plans have been prepared in substantial conformance with the recommendations of this report and to provide additional analyses or recommendations.

## LIMITATIONS AND UNIFORMITY OF CONDITIONS

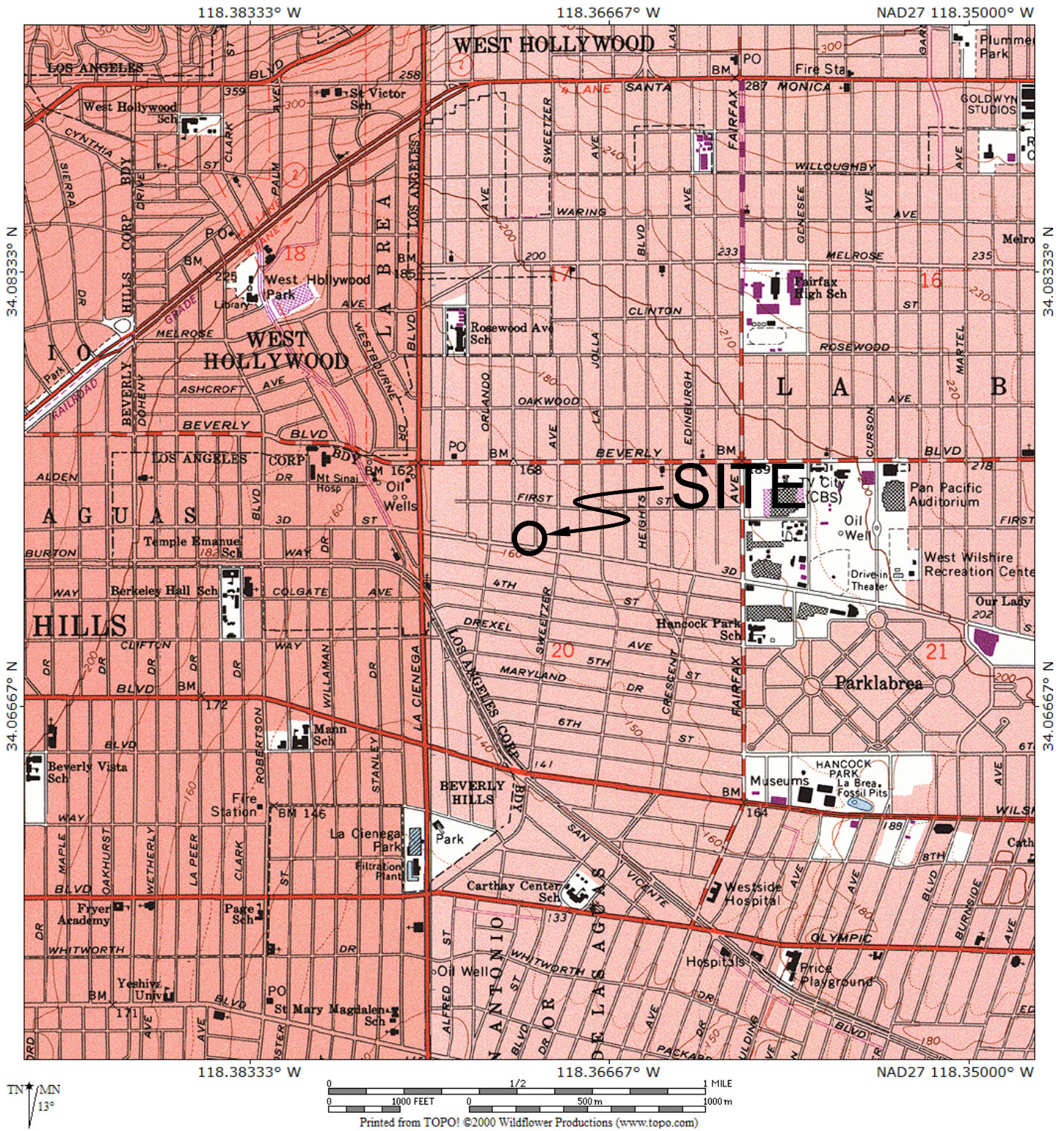
1. The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon West, Inc. should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by Geocon West, Inc.
2. This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.
3. The findings of this report are valid as of the date of this report. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.
4. The firm that performed the geotechnical investigation for the project should be retained to provide testing and observation services during construction to provide continuity of geotechnical interpretation and to check that the recommendations presented for geotechnical aspects of site development are incorporated during site grading, construction of improvements, and excavation of foundations. If another geotechnical firm is selected to perform the testing and observation services during construction operations, that firm should prepare a letter indicating their intent to assume the responsibilities of project geotechnical engineer of record. A copy of the letter should be provided to the regulatory agency for their records. In addition, that firm should provide revised recommendations concerning the geotechnical aspects of the proposed development, or a written acknowledgement of their concurrence with the recommendations presented in our report. They should also perform additional analyses deemed necessary to assume the role of Geotechnical Engineer of Record.

## LIST OF REFERENCES

- Ami Adini & Associates, Inc., 2008, *Additionally Off-Site Groundwater Assessment Report, 8355 West 3<sup>rd</sup> Street, Los Angeles, California, dated August 22, 2008.*
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- California Department of Water Resources, 1961, *Planned Utilization of Groundwater Basins of the Coastal Plain of Los Angeles County*, Bulletin 104, Appendix A.
- California Division of Mines and Geology, 1999, *State of California Seismic Hazard Zones, Hollywood Quadrangle*, Official Map, Released: March 25, 1999.
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U.S.G.S. TOPOGRAPHIC MAPS, 7.5 MINUTE SERIES, BEVERLY HILLS AND HOLLYWOOD, CA QUADRANGLES

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## VICINITY MAP

8331-8349 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA





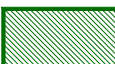
FEB. 2023

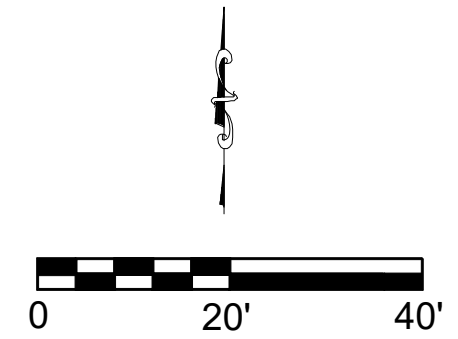
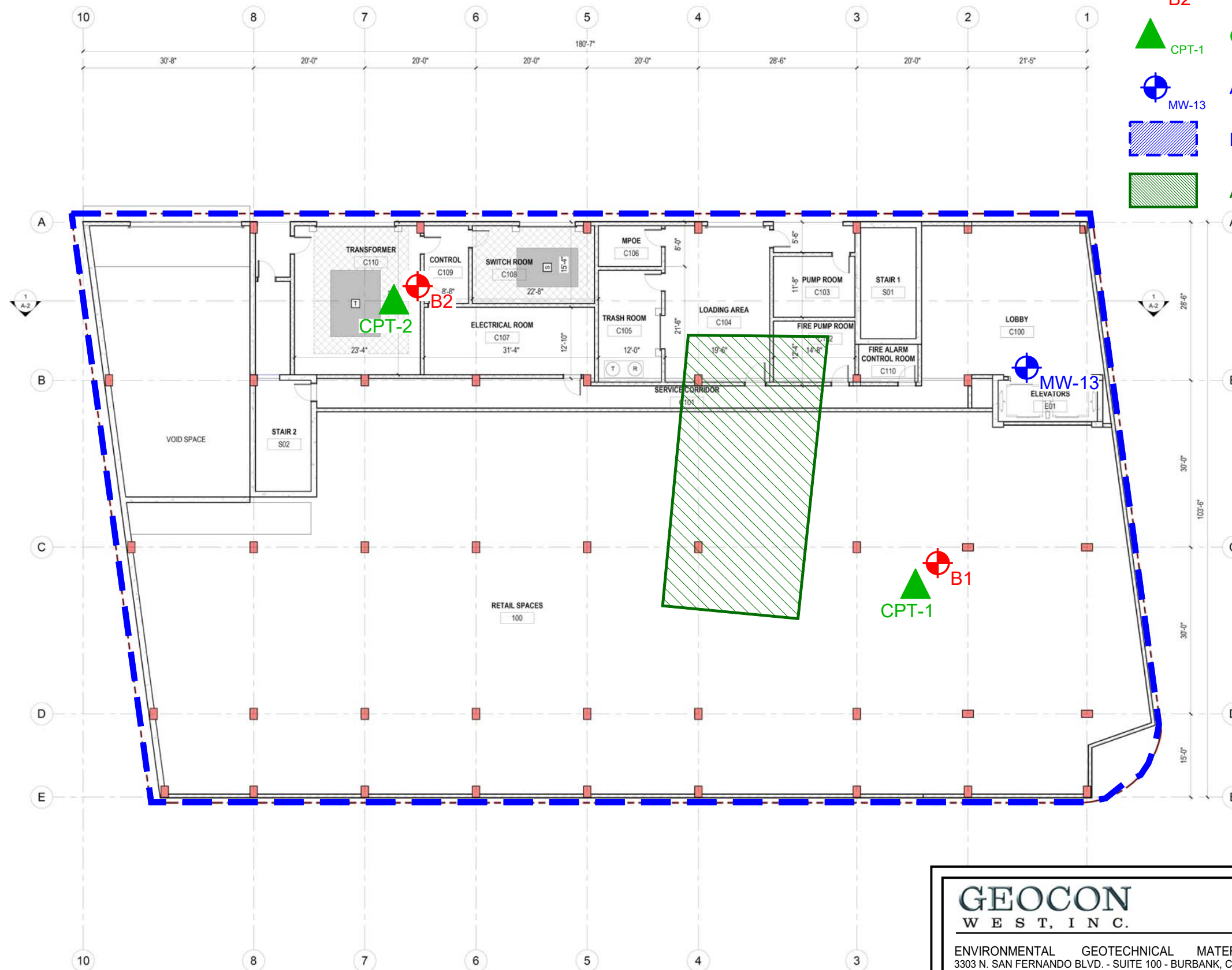
PROJECT NO. W1710-06-01

FIG. 1

Proposed 5-Levels of Residential Units, Over 2-Levels of Parking,  
Over Ground-Level Retail Space; Constructed at or near present grade

LEGEND

-  B2 Boring Location and Number (Geocon, 2023)
-  CPT-1 CPT Location and Number (Geocon, 2023)
-  MW-13 Approximate Location of Monitoring Well (AAA, 2008)
-  Limits of Proposed Development
-  Approximate Limits of Existing Basement (Baader, 2019)



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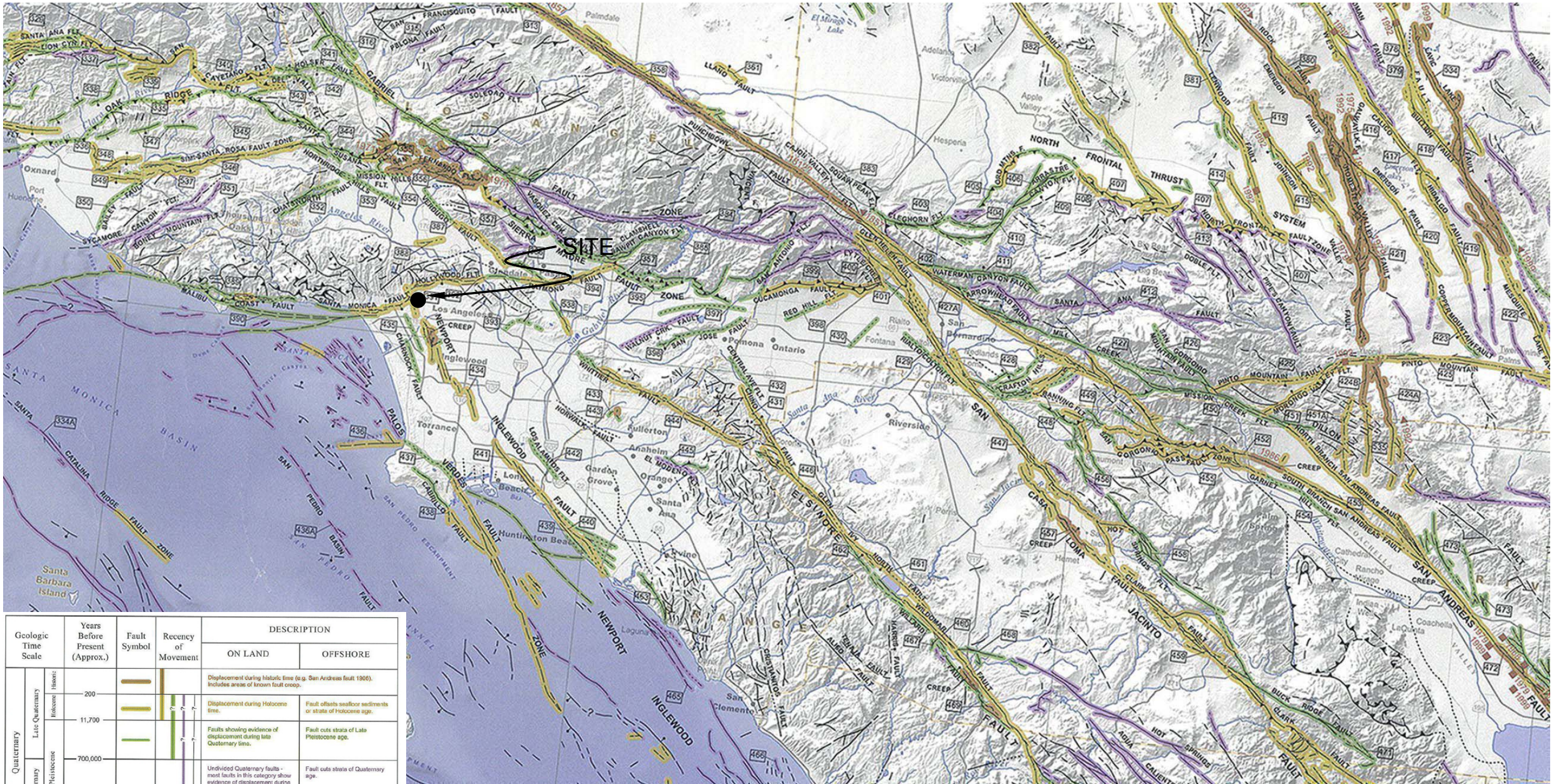
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SITE PLAN

8331-8349 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

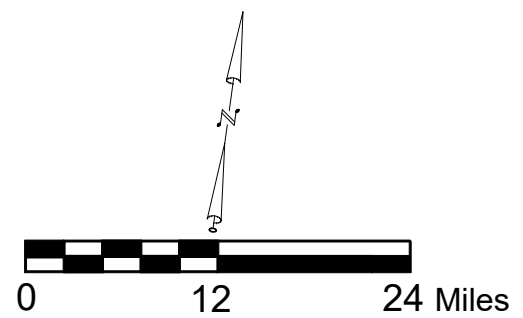
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Reference: Jennings, C.W. and Bryant, W. A., 2010, Fault Activity Map of California, California Geological Survey Geologic Data Map No. 6.



Geologic Time Scale	Years Before Present (Approx.)	Fault Symbol	Recency of Movement	DESCRIPTION	
				ON LAND	OFFSHORE
Quaternary	Holocene / Recent			Displacement during historic time (e.g. San Andreas fault 1906). Includes areas of known fault creep.	
	Late Quaternary			Displacement during Holocene time.	Fault offsets seafloor sediments or strata of Holocene age.
Quaternary	Pleistocene			Faults showing evidence of displacement during late Quaternary time.	Fault cuts strata of Late Pleistocene age.
	Early Quaternary			Undiscovered Quaternary faults - most faults in this category show evidence of displacement during the last 1,000,000 years; possible exceptions are faults which displace rocks of undifferentiated Plio-Pleistocene age.	Fault cuts strata of Quaternary age.
Pre-Quaternary	1,600,000' - 4.5 billion (Age of Earth)			Faults without recognized Quaternary displacement or showing evidence of no displacement during Quaternary time. Not necessarily inactive.	Fault cuts strata of Pliocene or older age.

\* Quaternary now recognized as extending to 2.6 Ma (Walker and Geissman, 2009). Quaternary faults in this map were established using the previous 1.6 Ma criterion.



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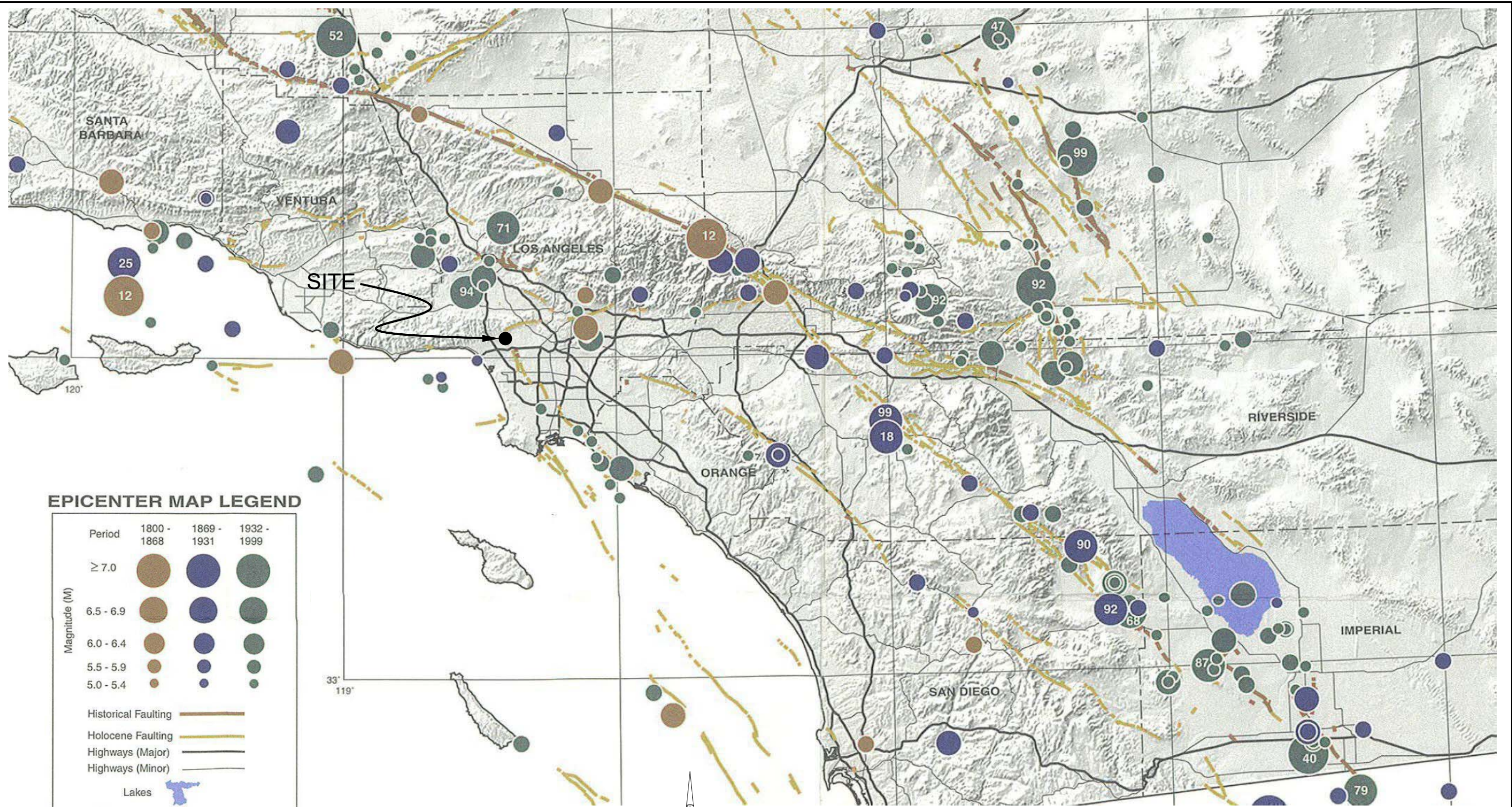
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**REGIONAL FAULT MAP**

8331-8349 WEST 3RD STREET  
 LOS ANGELES, CALIFORNIA

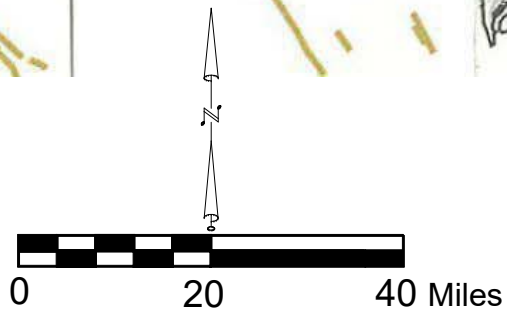
FEB. 2023      PROJECT NO. W1710-06-01      FIG. 3



**EPICENTER MAP LEGEND**

Period	1800 - 1868	1869 - 1931	1932 - 1999
Magnitude (M)			
≥ 7.0			
6.5 - 6.9			
6.0 - 6.4			
5.5 - 5.9			
5.0 - 5.4			
Historical Faulting			
Holocene Faulting			
Highways (Major)			
Highways (Minor)			
Lakes			
	Last two digits of M ≥ 6.5 earthquake year		

Reference: Topozada, T., Branum, D., Petersen, M., Hallstrom, C., Cramer, C., and Reichle, M., 2000, Epicenters and Areas Damaged by M≥5 California Earthquakes, 1800 - 1999, California Geological Survey, Map Sheet 49.



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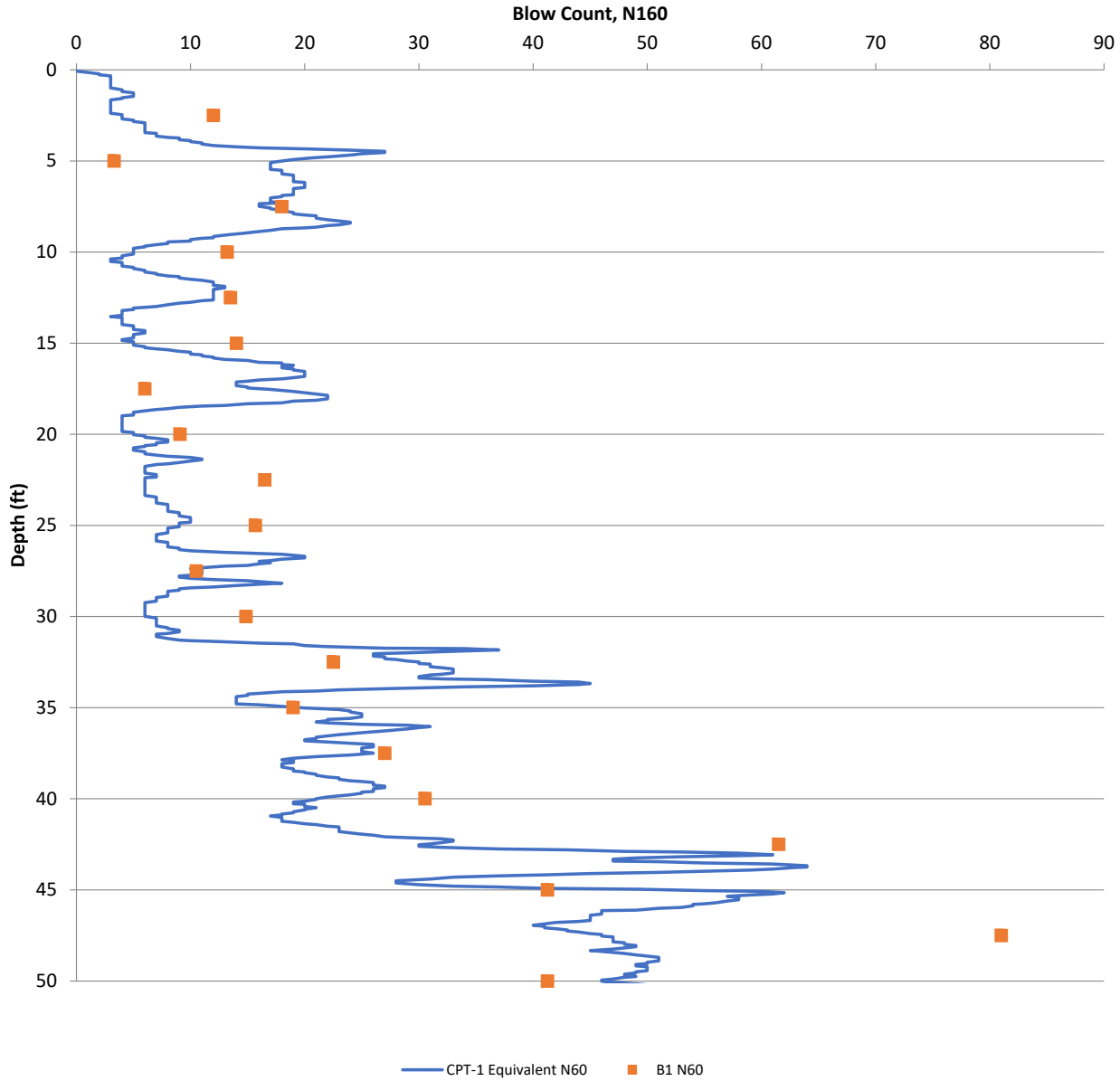
**REGIONAL SEISMICITY MAP**

8331-8349 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

FEB. 2023      PROJECT NO. W1710-06-01      FIG.4



## Correlation of Boring and CPT N60 Blow Counts



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JS

CORRELATION OF BORING & CPT N60

8331-8349 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

FEBRUARY 2023

PROJECT NO. W1710-06-01

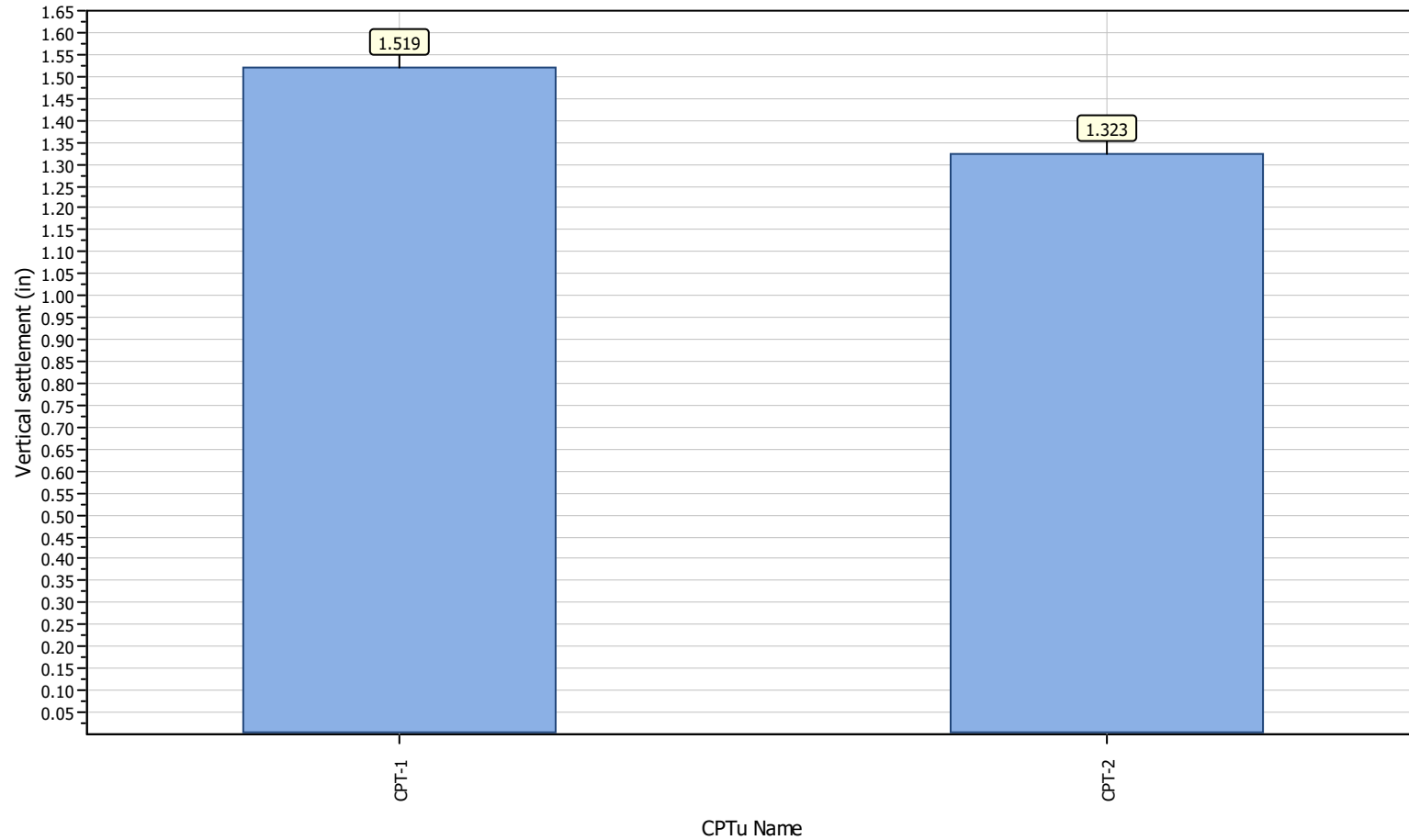
FIG. 5



**Project title : 8339 W 3rd Street, Los Angeles**

**Location : 8339 W 3rd Street, Los Angeles**

**Overall Vertical Settlements - Design Earthquake**

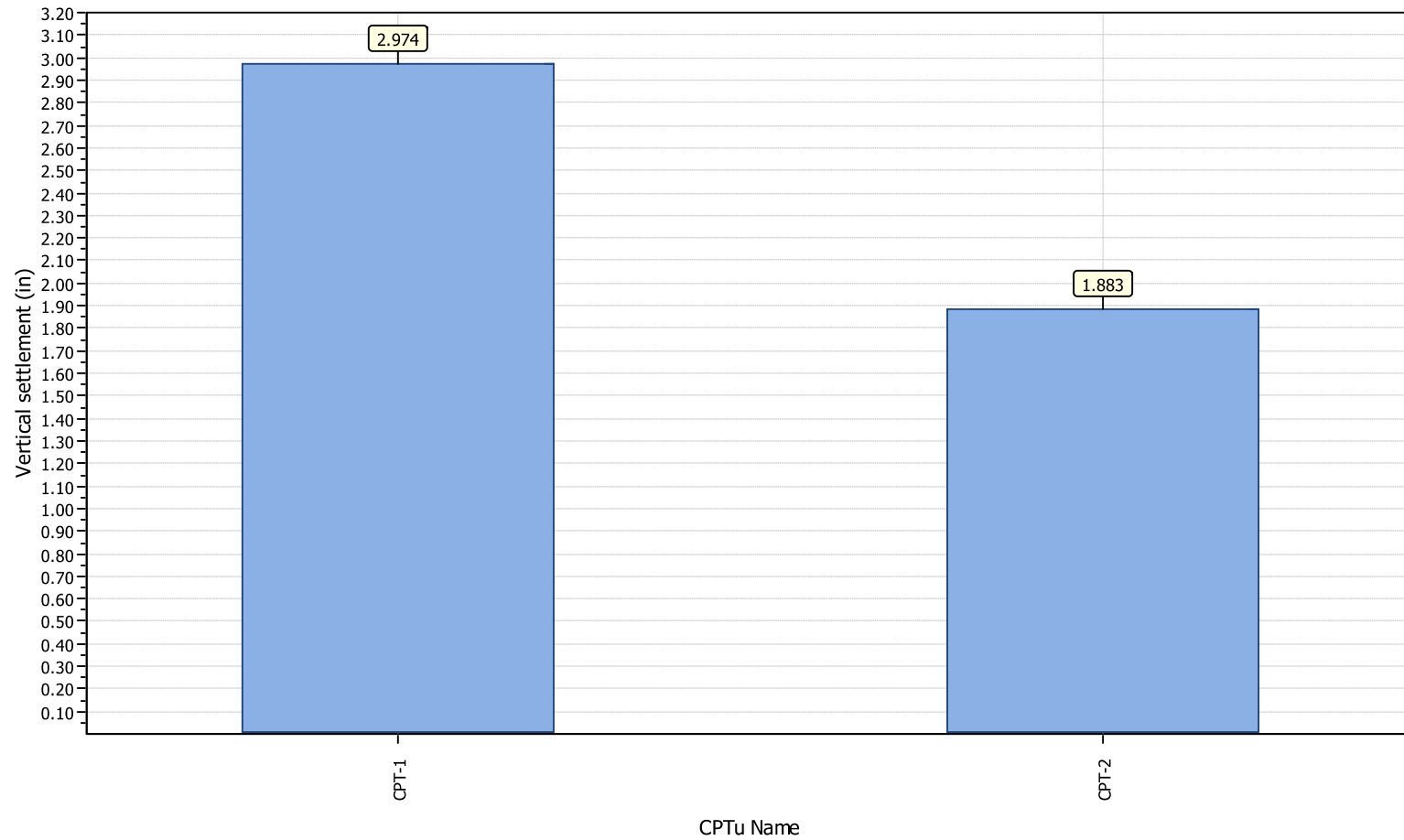


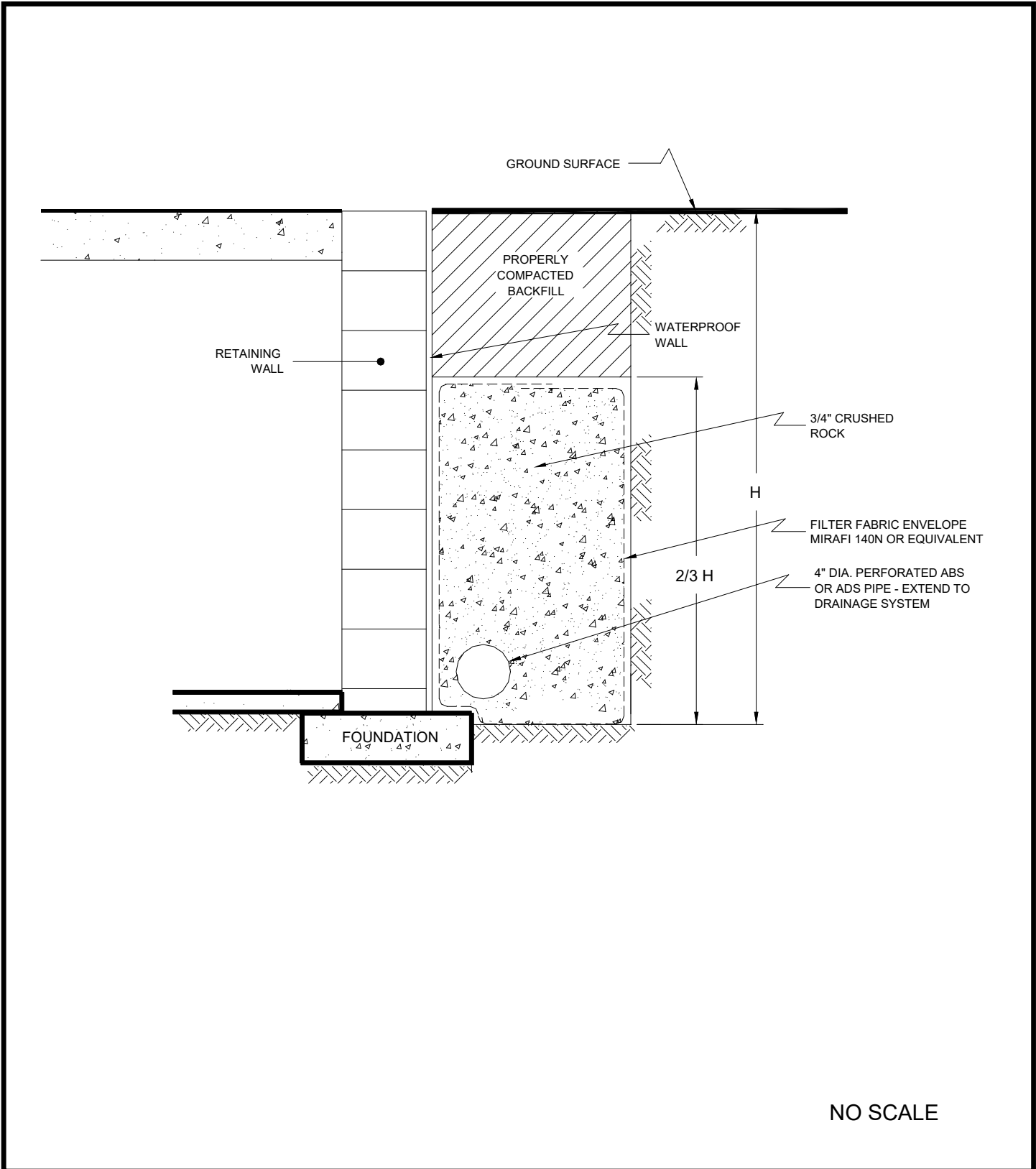


**Project title : 8339 W 3rd Street, Los Angeles**

**Location : 8339 W 3rd Street, Los Angeles**

**Overall Vertical Settlements - Maximum Considered Earthquake**





**GEOCON**  
WEST, INC.



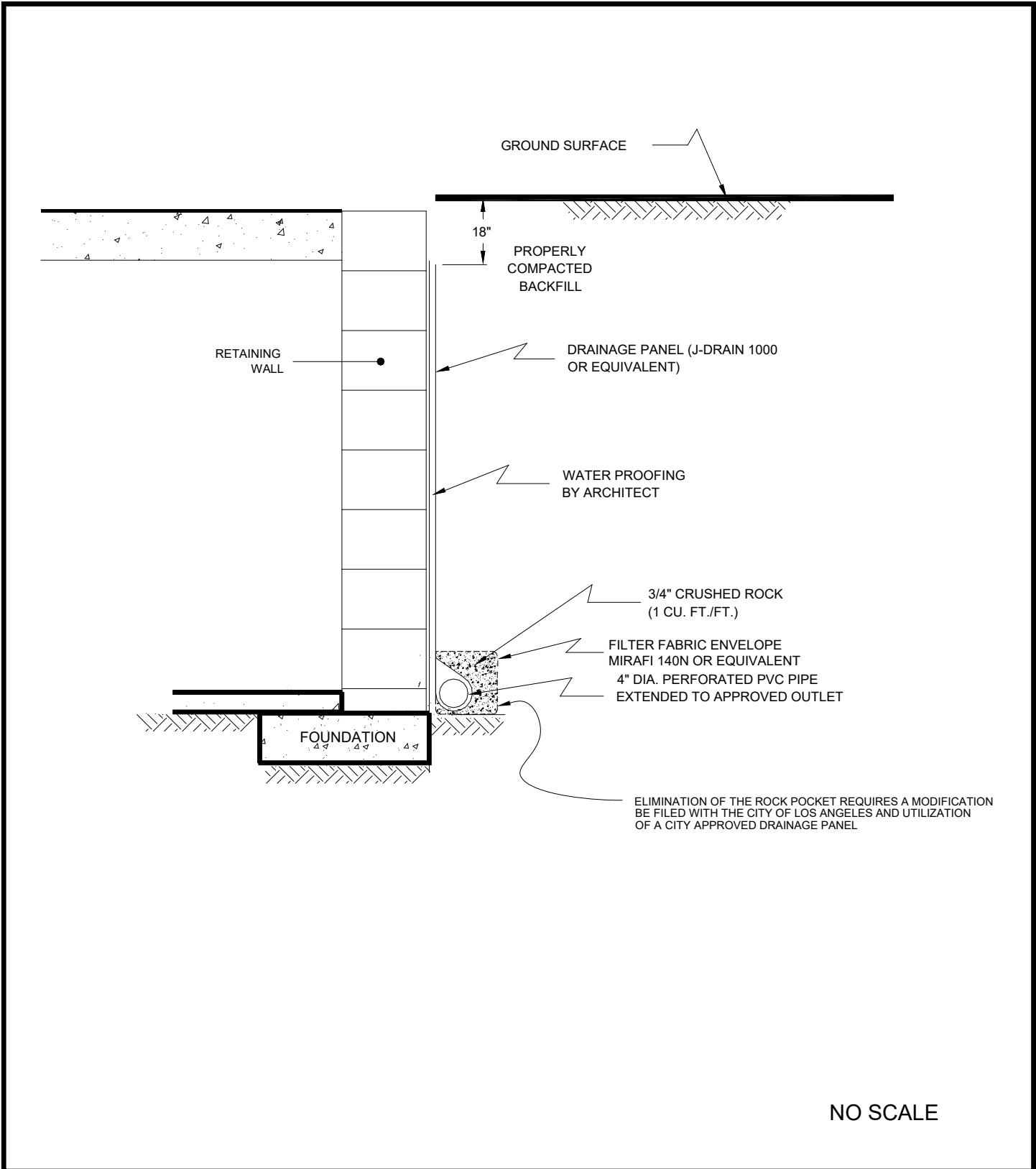
ENVIRONMENTAL GEOTECHNICAL MATERIALS  
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**RETAINING WALL DRAIN DETAIL**

8331-8349 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

FEB. 2023	PROJECT NO. W1710-06-01	FIG. 8
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**RETAINING WALL DRAIN DETAIL**

8331-8349 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

FEB. 2023	PROJECT NO. W1710-06-01	FIG. 9
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APPENDIX

A

## APPENDIX A

### FIELD INVESTIGATION

The site was explored on January 10, 2023, by excavating two 8-inch diameter borings to depths of approximately 25½ and 50½ feet below the existing ground surface using a truck-mounted hollow-stem auger drilling machine. Representative and relatively undisturbed samples were obtained by driving a 3-inch O. D., California Modified Sampler into the “undisturbed” soil mass with blows from a 140-pound auto-hammer falling 30 inches. The California Modified Sampler was equipped with 1-inch high by 2¾-inch diameter brass rings to facilitate soil removal and testing. Bulk samples were also obtained. Standard penetration tests were performed in boring B1.







The soil conditions encountered in the borings were visually examined, classified and logged in general accordance with the Unified Soil Classification System (USCS). The logs of the borings are presented on Figures A1 and A2. The logs depict the soil and geologic conditions encountered and the depth at which samples were obtained. The logs also include our interpretation of the conditions between sampling intervals. Therefore, the logs contain both observed and interpreted data. We determined the lines designating the interface between soil materials on the logs using visual observations, penetration rates, excavation characteristics and other factors. The transition between materials may be abrupt or gradual. Where applicable, the logs were revised based on subsequent laboratory testing. The approximate locations of the borings and CPTs are depicted on the Site Plan (see Figure 2).

Additional site exploration was performed on January 12, 2023, by advancing two cone penetration tests (CPTs) to depths of approximately 75 and 119 feet below the ground surface using a truck-mounted 30-ton CPT rig. Logs of the CPT soundings are provided as Figures A3 and A4.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	<b>BORING 1</b>		PENETRATION RESISTANCE (BLOWS/FT*)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) --	DATE COMPLETED <u>01/10/2023</u>			
					EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>CB</u>				
MATERIAL DESCRIPTION									
0	BULK 0-5'				<b>AC: 4" BASE: 4" ARTIFICIAL FILL</b> Sand, well graded, medium dense, slightly moist, grayish brown, fine- to coarse-grained, gravel (to 1.5"), trace silt.				
2	B1@2.5'				Clay with Sand, soft, dry, fine- to medium-grained, black, no odor, trace silt.		8		
4	B1@5'			SP-SM	<b>ALLUVIAL FAN DEPOSITS</b> Sand with Silt, loose, gray, coarse-grained, petroleum odor.		4	68.2	35.4
6	B1@7'			SP	Sand, poorly graded, medium dense, brown, dry, fine- to medium-grained, some silt, trace clay.		12		
10	B1@10'			SM	Silty Sand, loose, slightly moist, brown with light brown mottles, fine-grained, trace medium-grained, some clay.		16	96.8	16.7
12	B1@12'						9		
14			▼		- increase in sand, wet		17	112.5	14.0
16	B1@15'			ML	Clayey Silt, soft, wet, brown, fine-grained, some sand.		4		
18	B1@17'								
20	B1@20'				- grades to Silty Sand, loose, fine- to medium-grained, silt, trace clay		11	92.8	35.5
22	B1@22'			ML	Sandy Silt, firm, slightly moist, brown, fine-grained, some medium-grained, trace clay.		11		
24	B1@25'								
26	B1@25'			SP	Sand, poorly graded, medium dense, wet, brown with light brown mottles, fine- to medium-grained, some silt and clay.		19	95.2	29.0
28	B1@27'			ML	Sandy Silt with Clay, soft, slightly moist, brown with light brown mottles, fine-grained.		7		

**Figure A1,**  
**Log of Boring 1, Page 1 of 2**

W1710-06-01 BORING LOGS.GPJ

SAMPLE SYMBOLS	 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
	 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.



DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	<b>BORING 1</b>			PENETRATION RESISTANCE (BLOWS/FT*)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)		
					ELEV. (MSL.)	--	DATE COMPLETED					
					ELEV. (MSL.) -- DATE COMPLETED <u>01/10/2023</u>							
					EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>CB</u>							
					MATERIAL DESCRIPTION							
30	B1@30'			ML	- hard			18	85.4	29.2		
32	B1@32'			SM	Silty Sand, medium dense, moist, gray, fine- to medium-grained, trace clay.			15				
34												
36	B1@35'			SC	Clayey Sand, stiff, slightly moist, grayish brown with brown mottles, trace fine-grained sand.			23	107.6	21.3		
38	B1@37'							18				
40	B1@40'				- grades coarser			37	124.9	12.8		
42	B1@42'				- dense, dry, bluish gray, some fine-grained sand			41				
44	B1@45'				- grades to sand with some silt, very dense, slightly moist, gray, fine to medium grained			50 (3")	167.4	13.9		
46	B1@47'							54				
48												
50	B1@50'							50 (4")	120.6	13.2		
					Total depth of boring: 50.5 feet Fill to 4 feet. Groundwater encountered at 14 feet. Backfilled with soil cuttings and tamped.  *Penetration resistance for 140-pound hammer falling 30 inches by auto-hammer. NOTE: The stratification lines presented herein represent the approximate boundary between earth types; the transitions may be gradual.							

**Figure A1,**  
**Log of Boring 1, Page 2 of 2**

W1710-06-01 BORING LOGS.GPJ

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	<b>BORING 2</b>			PENETRATION RESISTANCE (BLOWS/FT*)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.)	--	DATE COMPLETED			
					ELEV. (MSL.) -- DATE COMPLETED <b>01/10/2023</b>					
					EQUIPMENT <b>HOLLOW STEM AUGER</b> BY: <b>CB</b>					
					MATERIAL DESCRIPTION					
0	BULK 0-5'				<b>AC: 4" BASE: 3" ARTIFICIAL FILL</b> Silt with Clay, firm, slightly moist, dark gray, fine- to coarse-grained, some sand, trace gravel (to 1.5").			17	74.2	36.0
2	B2@2'									
4	B2@5'			ML	<b>ALLUVIAL FAN DEPOSITS</b> Silt with Sand, firm, slightly moist, brown with light brown mottles, fine-grained, some clay.			18	86.6	26.6
6	B2@7'									
8	B2@10'			SM	Silty Sand, medium dense, slightly moist, brown, fine- to medium-grained, some clay.			26	97.4	23.7
10	B2@12.5'			SP	- grades to sand with silt, medium dense, slightly moist, reddish brown, fine-grained, some medium-grained			32		
12	B2@15'			ML	Sand, well-graded, medium dense, moist, reddish brown, fine- to coarse-grained, some gravel (to 2"), trace silt.			13	117.1	2.2
14	B2@17.5'				Silt with Sand, firm, slightly moist, light brown with brown mottles, fine- to medium-grained, some clay.					
16	B2@20'				Silt with Clay, firm, moist, light brown, fine- to medium-grained, some coarse-grained, trace sand.			13	105.4	22.9
18	B2@25'			ML	- grades to sand with silt, medium dense, moist, brown, fine-grained			19	113.4	18.3
20	B2@25'				- firm, moist, reddish brown, trace fine-grained			15	97.5	28.1
22										
24					- wet					
					Total depth of boring: 25.5 feet Fill to 3 feet. Groundwater encountered at 23.5 feet. Backfilled with soil cuttings and tamped.  *Penetration resistance for 140-pound hammer falling 30 inches by auto-hammer.			20	118.1	16.4

**Figure A2,**  
**Log of Boring 2, Page 1 of 2**

W1710-06-01 BORING LOGS.GPJ

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

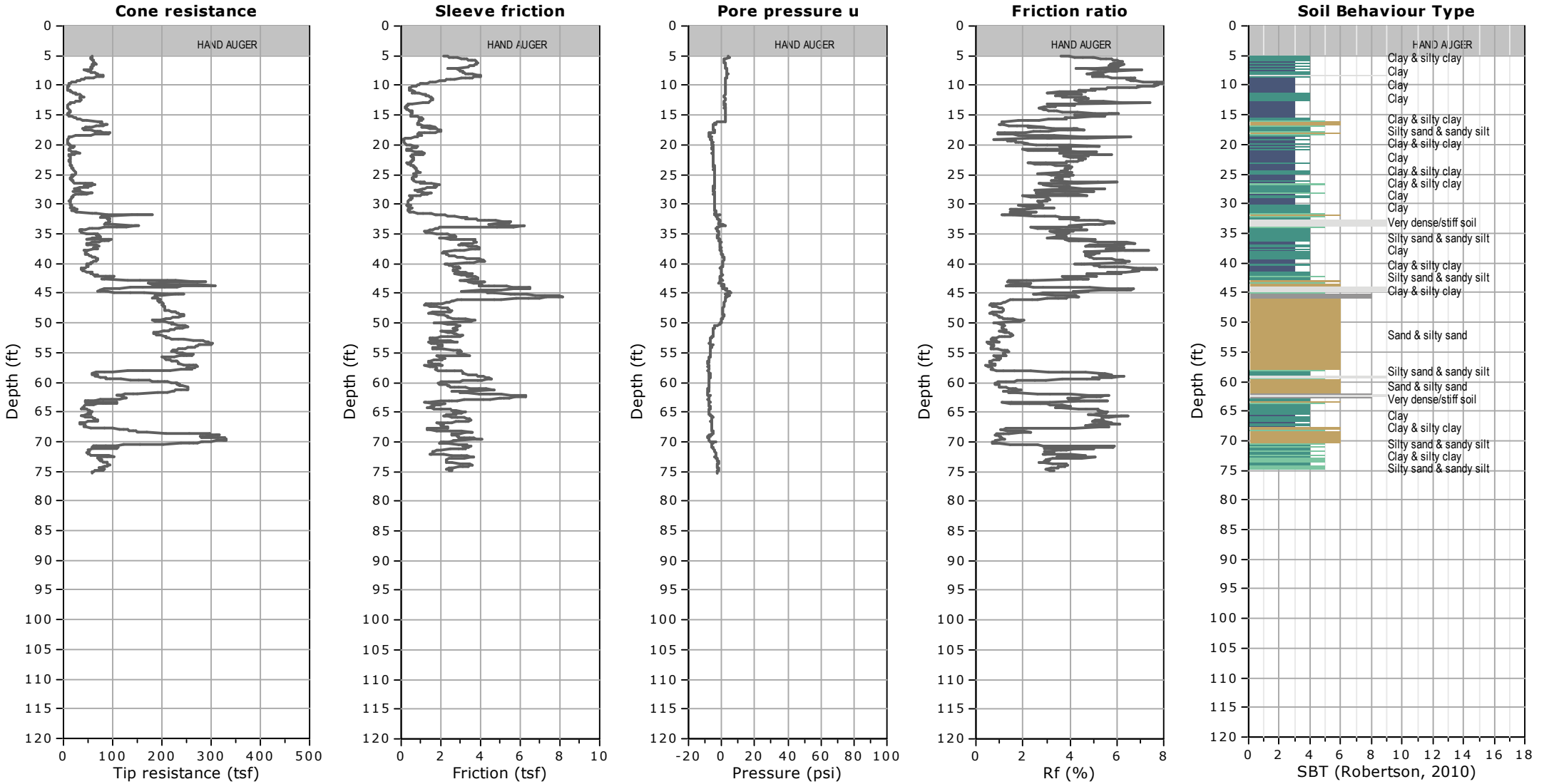
DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	<b>BORING 2</b>  ELEV. (MSL.) -- _____ DATE COMPLETED <u>01/10/2023</u>  EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>CB</u>	PENETRATION RESISTANCE (BLOWS/FT*)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
MATERIAL DESCRIPTION								
<p>NOTE: The stratification lines presented herein represent the approximate boundary between earth types; the transitions may be gradual.</p>								

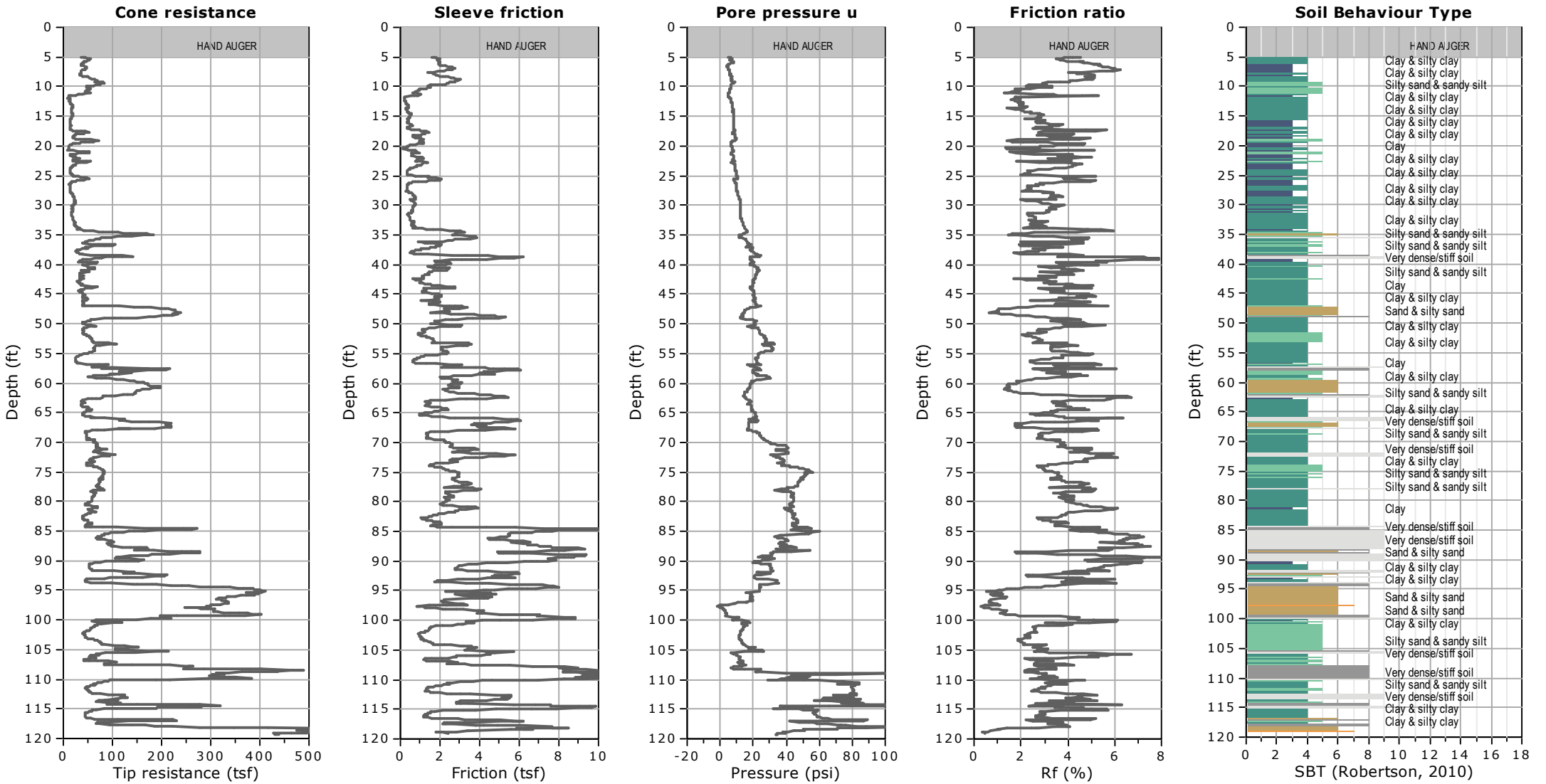
**Figure A2,**  
**Log of Boring 2, Page 2 of 2**

W1710-06-01 BORING LOGS.GPJ

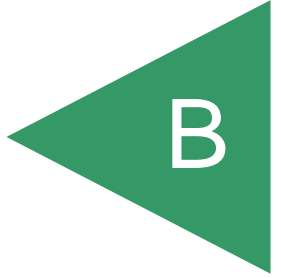
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NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.





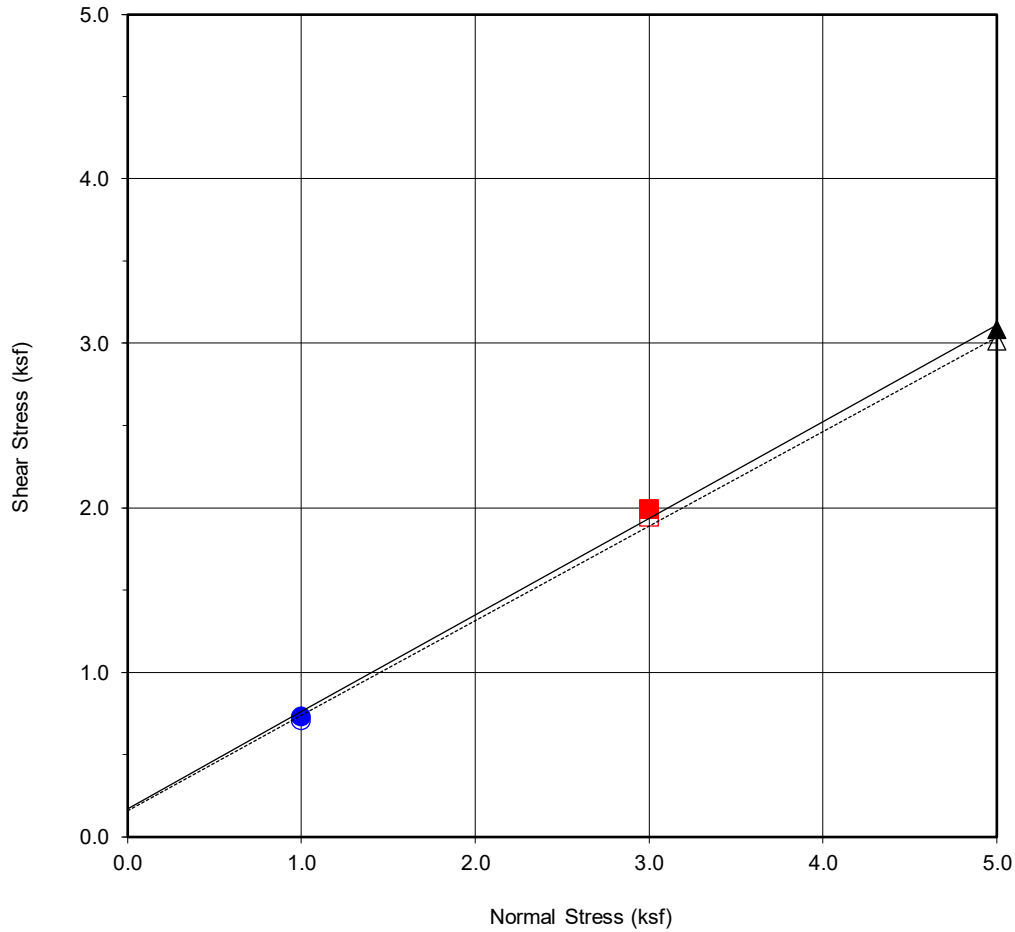
APPENDIX



## **APPENDIX B**

### **LABORATORY TESTING**

Laboratory tests were performed in accordance with generally accepted test methods of the “American Society for Testing and Materials (ASTM)”, or other suggested procedures. Selected samples were tested for direct shear strength, consolidation, plasticity indices, grain size, moisture density relationship, expansion characteristics, corrosivity and in-place dry density and moisture content. The results of the laboratory tests are summarized in Figures B1 through B22. The in-place dry density and moisture content of the samples tested are presented on the boring logs, Appendix A.



<b>Boring No.</b>	<b>B1</b>
<b>Sample No.</b>	<b>B1@5</b>
<b>Depth (ft)</b>	<b>5</b>
<u>Sample Type:</u>	ring

<u>Soil Identification:</u>		
Sand with Silt, gray		
<b>Strength Parameters</b>		
	C (psf)	$\phi$ ( $^{\circ}$ )
Peak	172	30
Ultimate	160	30

Normal Stress (kip/ft <sup>2</sup> )	1	3	5
Peak Shear Stress (kip/ft <sup>2</sup> )	● 0.73	■ 1.99	▲ 3.08
Shear Stress @ End of Test (ksf)	○ 0.71	□ 1.94	△ 3.01
Deformation Rate (in./min.)	0.05	0.05	0.05
Initial Sample Height (in.)	1.0	1.0	1.0
Ring Inside Diameter (in.)	2.375	2.375	2.375
Initial Moisture Content (%)	36.9	40.5	41.7
Initial Dry Density (pcf)	89.8	87.7	86.7
Initial Degree of Saturation (%)	113.7	118.6	119.2
Soil Height Before Shearing (in.)	1.2	1.2	1.2
Final Moisture Content (%)	31.6	29.9	30.1



**DIRECT SHEAR TEST RESULTS**  
Consolidated Drained ASTM D-3080

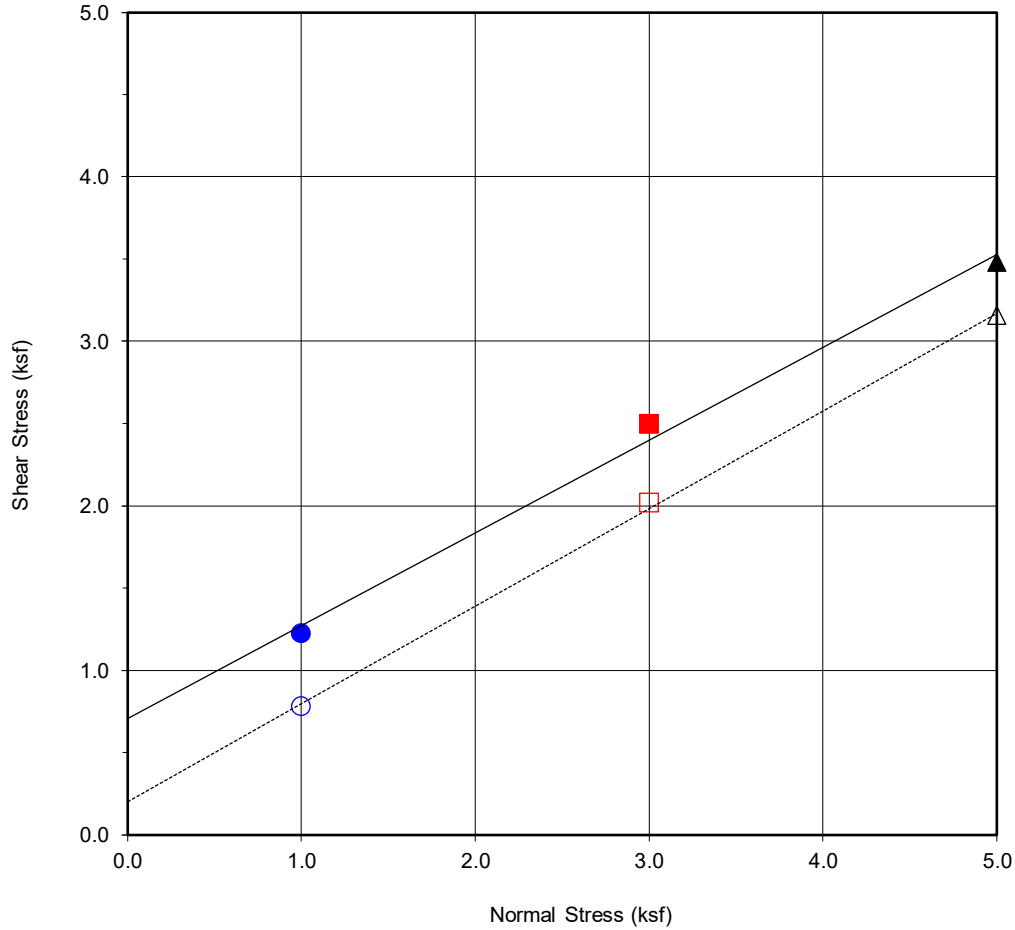
Checked by: JS

Project No.: W1710-06-01

8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

Feb 23 Figure B1





<b>Boring No.</b>	<b>B2</b>
<b>Sample No.</b>	<b>B2@5</b>
<b>Depth (ft)</b>	<b>5</b>
<u>Sample Type:</u>	ring

<u>Soil Identification:</u>		
Silt with Sand, brown		
<b>Strength Parameters</b>		
	C (psf)	$\phi$ ( $^{\circ}$ )
Peak	708	29
Ultimate	202	31

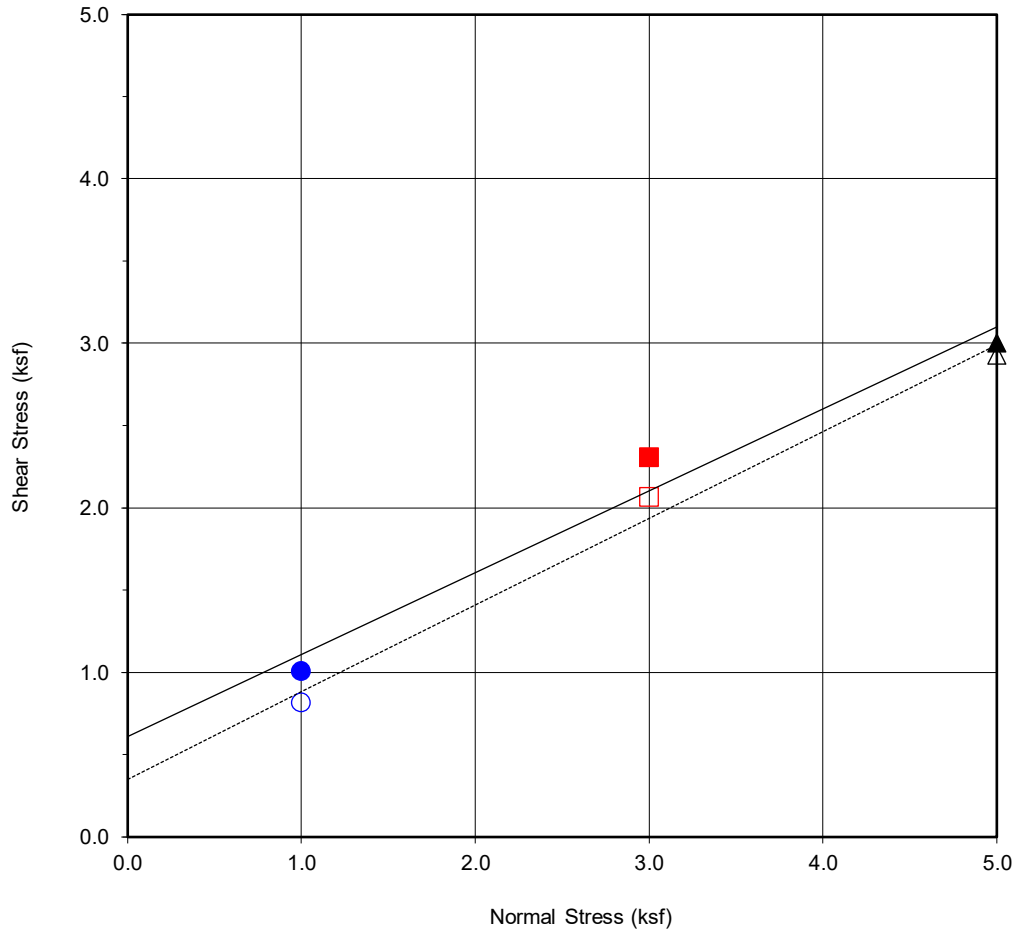
Normal Stress (kip/ft <sup>2</sup> )	1	3	5
Peak Shear Stress (kip/ft <sup>2</sup> )	● 1.22	■ 2.50	▲ 3.48
Shear Stress @ End of Test (ksf)	○ 0.78	□ 2.02	△ 3.16
Deformation Rate (in./min.)	0.05	0.05	0.05
Initial Sample Height (in.)	1.0	1.0	1.0
Ring Inside Diameter (in.)	2.375	2.375	2.375
Initial Moisture Content (%)	36.2	32.8	32.1
Initial Dry Density (pcf)	90.1	92.5	94.9
Initial Degree of Saturation (%)	112.2	107.7	111.7
Soil Height Before Shearing (in.)	1.2	1.2	1.2
Final Moisture Content (%)	36.6	34.0	31.3



**DIRECT SHEAR TEST RESULTS**  
Consolidated Drained ASTM D-3080

Checked by: JS

Project No.: W1710-06-01  
8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA  
Feb 23 Figure B2



<b>Boring No.</b>	<b>B2</b>
<b>Sample No.</b>	<b>B2@15</b>
<b>Depth (ft)</b>	<b>15</b>
<u>Sample Type:</u>	ring

<u>Soil Identification:</u>		
Silt with Clay, light brown		
<b>Strength Parameters</b>		
	C (psf)	$\phi$ ( $^{\circ}$ )
Peak	610	26
Ultimate	352	28

Normal Stress (kip/ft <sup>2</sup> )	1	3	5
Peak Shear Stress (kip/ft <sup>2</sup> )	● 1.01	■ 2.30	▲ 3.00
Shear Stress @ End of Test (ksf)	○ 0.82	□ 2.06	△ 2.93
Deformation Rate (in./min.)	0.05	0.05	0.05
Initial Sample Height (in.)	1.0	1.0	1.0
Ring Inside Diameter (in.)	2.375	2.375	2.375
Initial Moisture Content (%)	22.9	21.2	25.1
Initial Dry Density (pcf)	104.7	108.1	101.7
Initial Degree of Saturation (%)	101.5	102.6	103.1
Soil Height Before Shearing (in.)	1.2	1.2	1.2
Final Moisture Content (%)	23.5	20.3	23.3



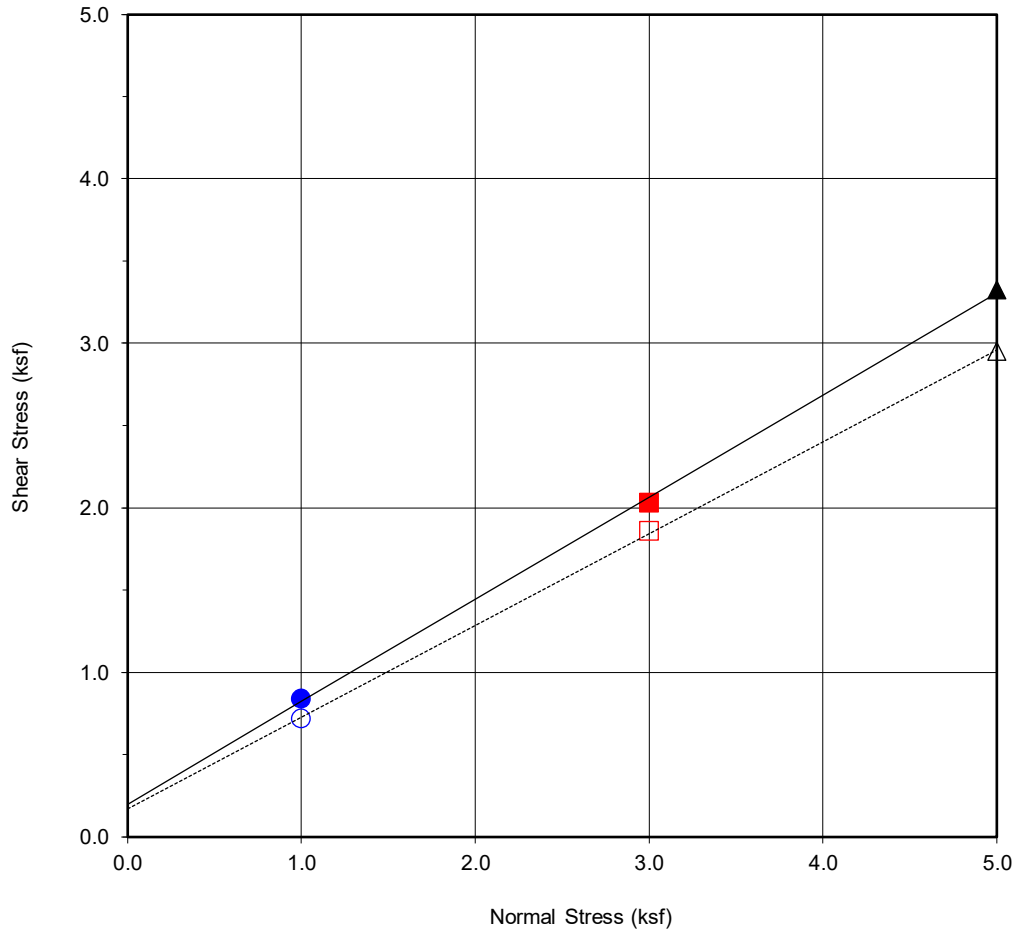
**DIRECT SHEAR TEST RESULTS**  
Consolidated Drained ASTM D-3080

Checked by: JS

Project No.: W1710-06-01

8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

Feb 23 Figure B3



<b>Boring No.</b>	<b>B2</b>
<b>Sample No.</b>	<b>B2@20</b>
<b>Depth (ft)</b>	<b>20</b>
<u>Sample Type:</u>	Ring

<u>Soil Identification:</u>		
Silt with Clay, light brown		
<b>Strength Parameters</b>		
	C (psf)	$\phi$ ( $^{\circ}$ )
Peak	201	32
Ultimate	170	29

Normal Stress (kip/ft <sup>2</sup> )	1	3	5
Peak Shear Stress (kip/ft <sup>2</sup> )	● 0.84	■ 2.03	▲ 3.32
Shear Stress @ End of Test (ksf)	○ 0.72	□ 1.86	△ 2.95
Deformation Rate (in./min.)	0.05	0.05	0.05
Initial Sample Height (in.)	1.0	1.0	1.0
Ring Inside Diameter (in.)	2.375	2.375	2.375
Initial Moisture Content (%)	34.3	29.7	29.2
Initial Dry Density (pcf)	90.6	95.9	96.1
Initial Degree of Saturation (%)	107.6	106.0	104.6
Soil Height Before Shearing (in.)	1.2	1.2	1.2
Final Moisture Content (%)	33.3	27.8	27.6



**DIRECT SHEAR TEST RESULTS**  
Consolidated Drained ASTM D-3080

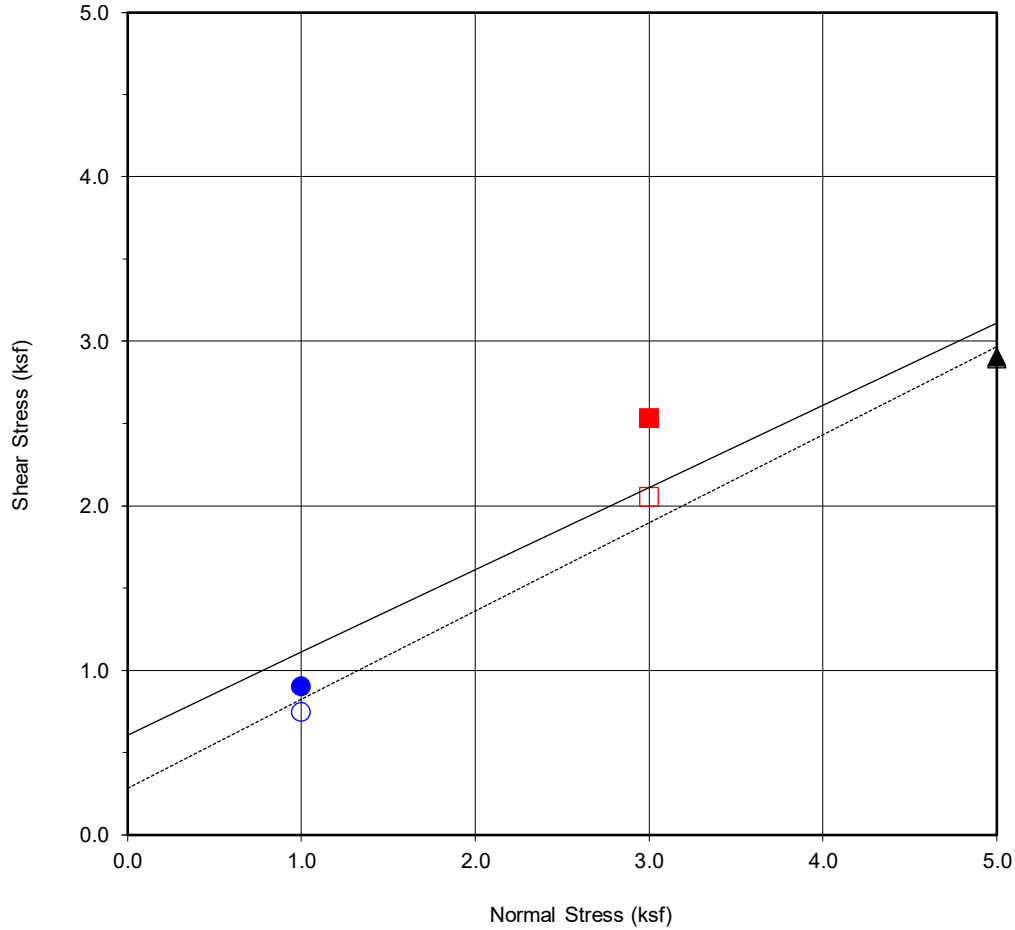
Checked by: JS

Project No.: W1710-06-01

8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

Feb 23

Figure B4



<b>Boring No.</b>	<b>B1</b>
<b>Sample No.</b>	<b>B1@25</b>
<b>Depth (ft)</b>	<b>25</b>
<u>Sample Type:</u>	ring

<u>Soil Identification:</u>		
Silt with Sand, brown		
<b>Strength Parameters</b>		
	C (psf)	$\phi$ ( $^{\circ}$ )
Peak	609	27
Ultimate	285	28

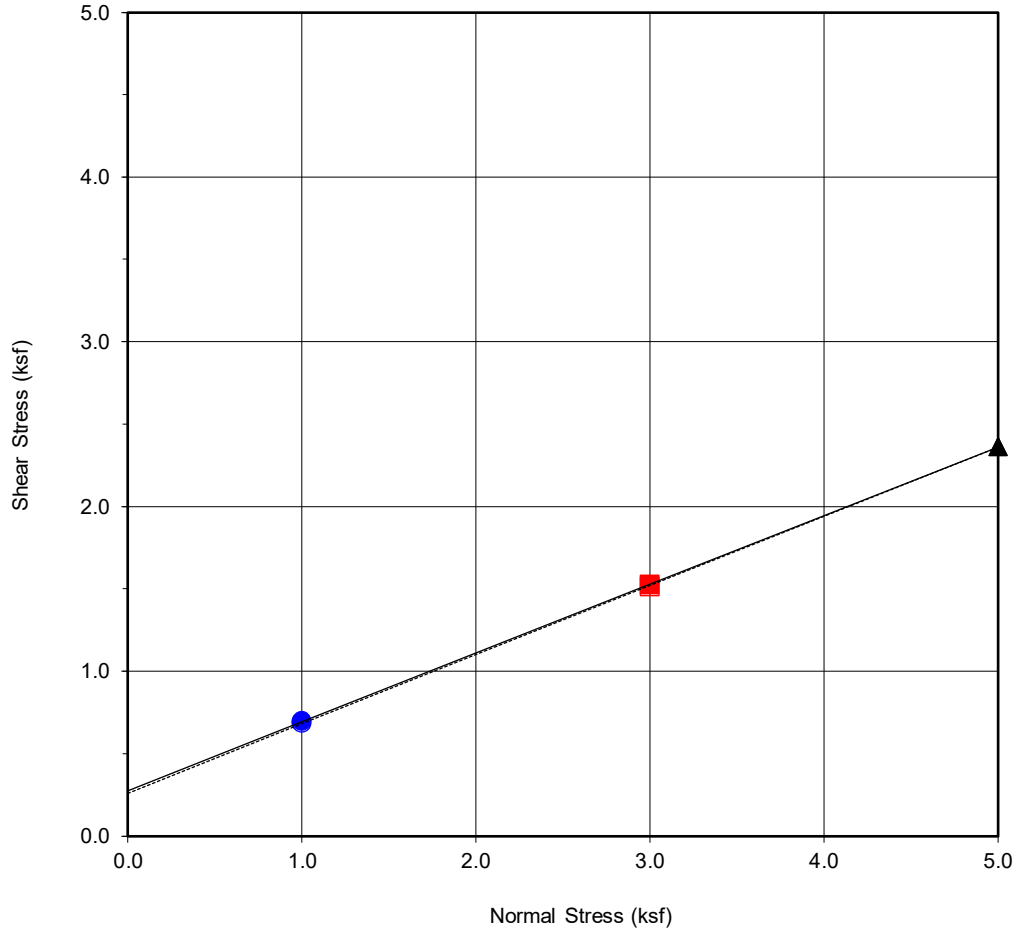
Normal Stress (kip/ft <sup>2</sup> )	1	3	5
Peak Shear Stress (kip/ft <sup>2</sup> )	● 0.90	■ 2.53	▲ 2.90
Shear Stress @ End of Test (ksf)	○ 0.74	□ 2.05	△ 2.89
Deformation Rate (in./min.)	0.05	0.05	0.05
Initial Sample Height (in.)	1.0	1.0	1.0
Ring Inside Diameter (in.)	2.375	2.375	2.375
Initial Moisture Content (%)	31.4	29.0	32.2
Initial Dry Density (pcf)	93.5	96.6	92.4
Initial Degree of Saturation (%)	105.7	104.9	105.4
Soil Height Before Shearing (in.)	1.2	1.2	1.2
Final Moisture Content (%)	31.7	28.6	30.6



**DIRECT SHEAR TEST RESULTS**  
Consolidated Drained ASTM D-3080

Checked by: JS

Project No.: W1710-06-01  
8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA  
Feb 23 Figure B5



<b>Boring No.</b>	<b>B2</b>
<b>Sample No.</b>	<b>B2@0-5</b>
<b>Depth (ft)</b>	<b>0-5</b>
<u>Sample Type:</u>	Bulk

<u>Soil Identification:</u>		
Silt with Clay and Sand, dark grayish brown		
<b>Strength Parameters</b>		
	C (psf)	$\phi$ ( $^{\circ}$ )
Peak	277	23
Ultimate	260	23

Normal Stress (kip/ft <sup>2</sup> )	1	3	5
Peak Shear Stress (kip/ft <sup>2</sup> )	● 0.70	■ 1.52	▲ 2.36
Shear Stress @ End of Test (ksf)	○ 0.68	□ 1.51	△ 2.36
Deformation Rate (in./min.)	0.05	0.05	0.05
Initial Sample Height (in.)	1.0	1.0	1.0
Ring Inside Diameter (in.)	2.375	2.375	2.375
Initial Moisture Content (%)	16.4	16.4	16.6
Initial Dry Density (pcf)	97.0	97.0	96.9
Initial Degree of Saturation (%)	60.2	60.1	60.5
Soil Height Before Shearing (in.)	1.2	1.2	1.2
Final Moisture Content (%)	23.6	19.5	19.3



**DIRECT SHEAR TEST RESULTS**  
Consolidated Drained ASTM D-3080

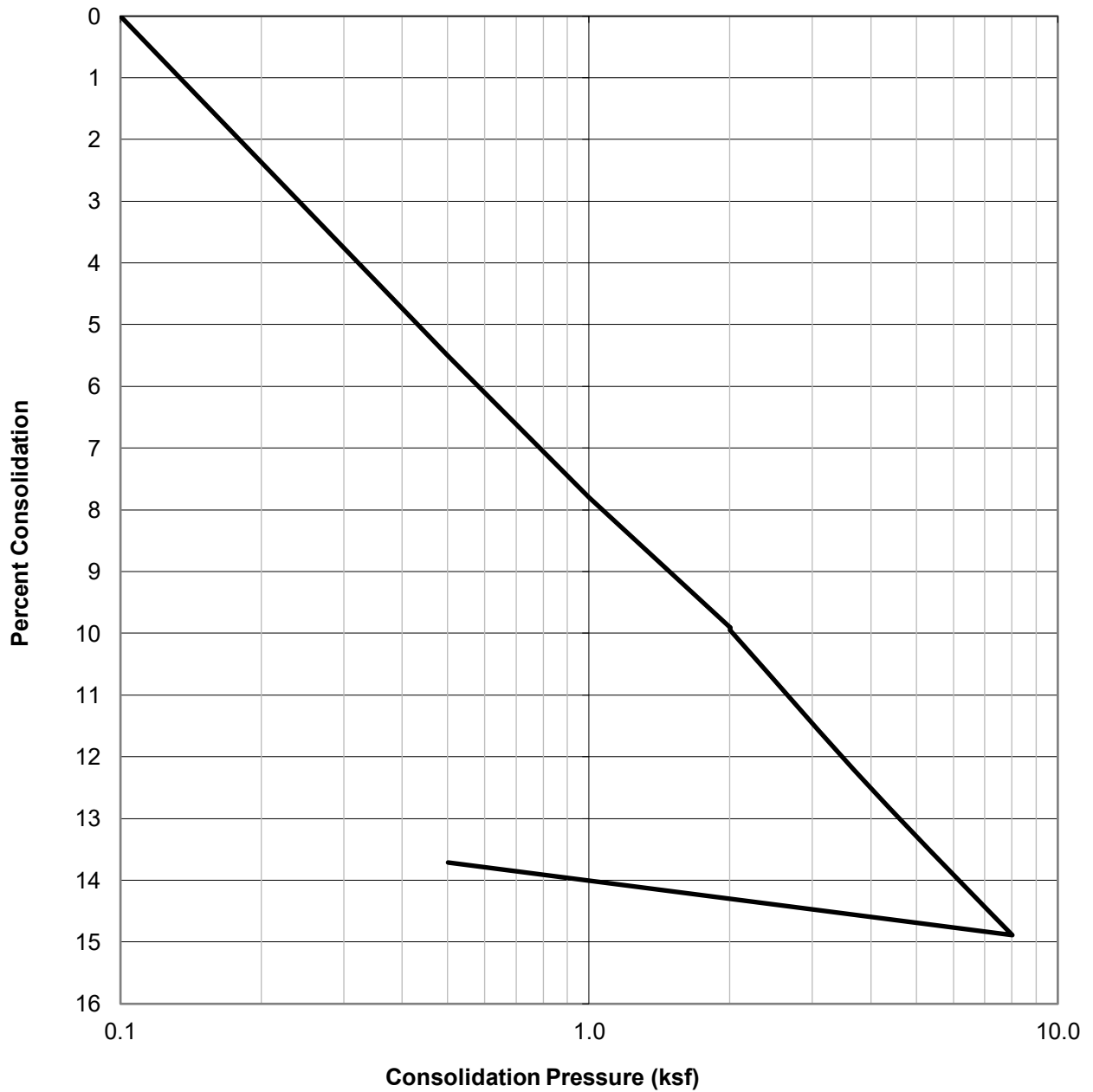
Checked by: JS

Project No.: W1710-06-01


8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

Feb 23 Figure B6

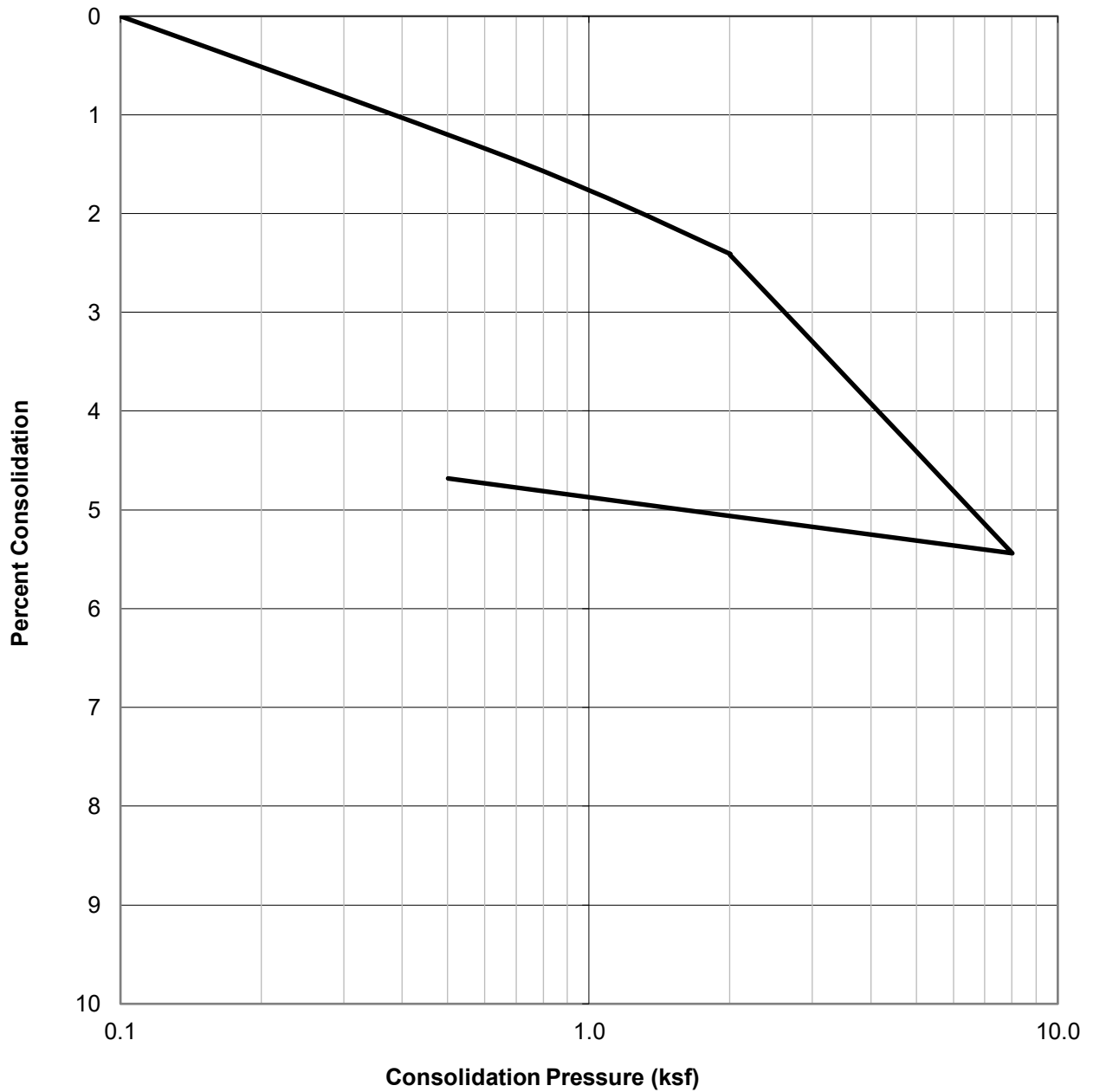
WATER ADDED AT 2.0 KSF



SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B1@5	CLAY (CL), dark gray	92.3	35.4	27.1

	<b>CONSOLIDATION TEST RESULTS</b> ASTM D-2435	Project No.: W1710-06-01
		8339 WEST 3RD STREET LOS ANGELES, CALIFORNIA
	Checked by: JS	Feb 23

WATER ADDED AT 2.0 KSF



SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B1@10	Silty Sand, brown	110.8	16.7	17.2



**CONSOLIDATION TEST RESULTS**

ASTM D-2435

Checked by: JS

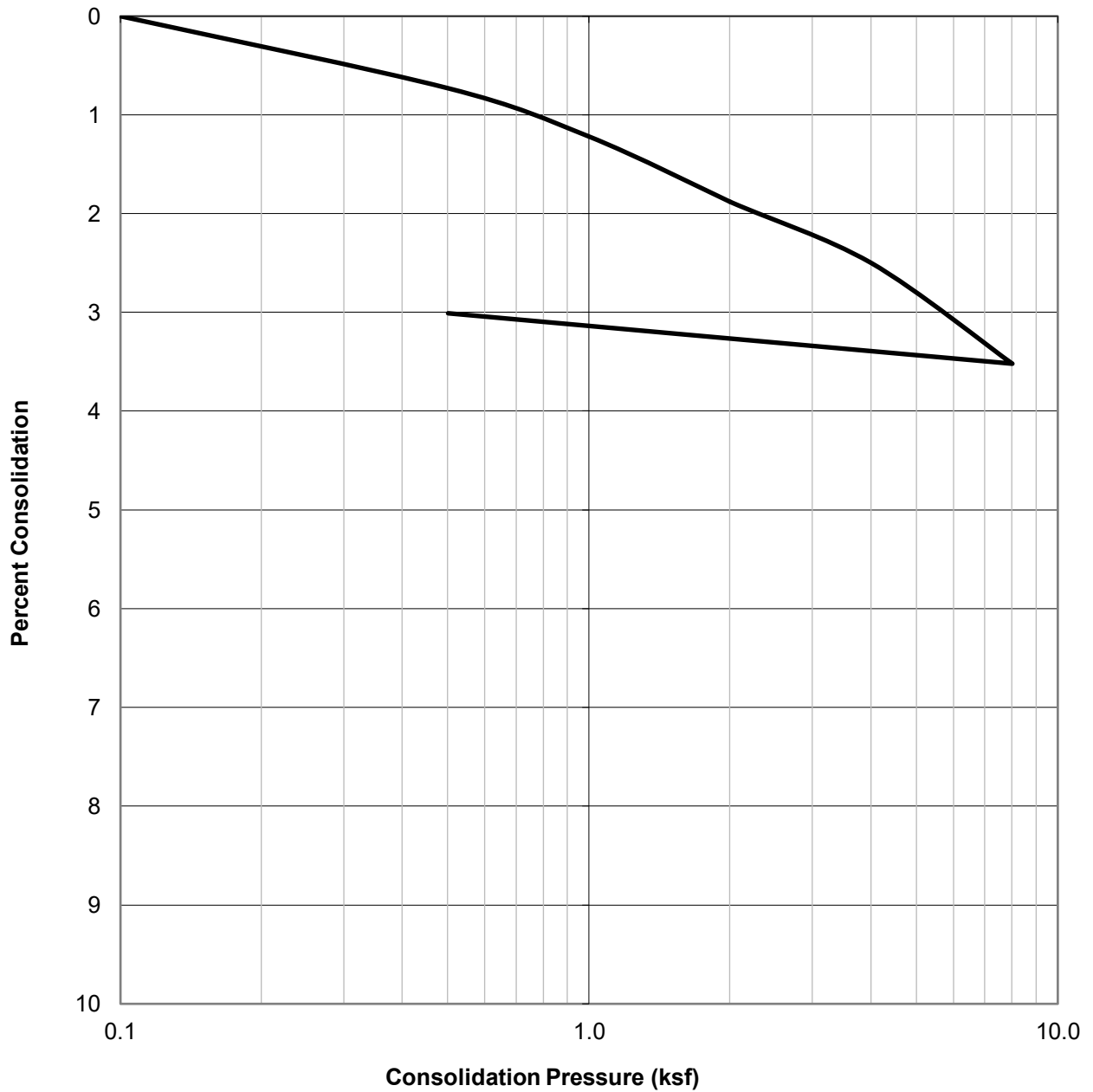
Project No.: W1710-06-01

8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

Feb 23

Figure B8

WATER ADDED AT 2.0 KSF



SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B1@15	Silty Sand, brown	118.3	14.0	14.1

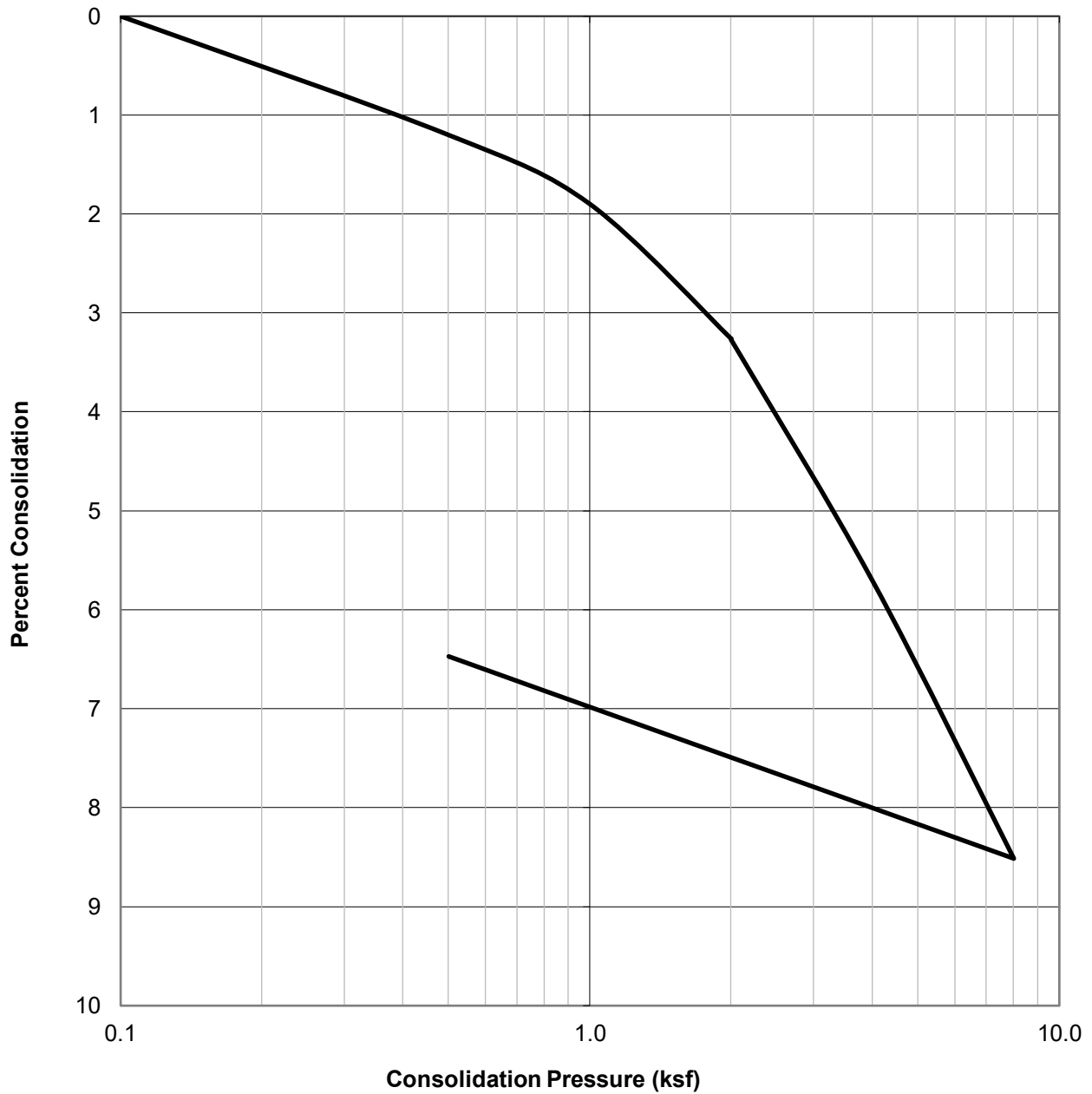


**CONSOLIDATION TEST RESULTS**  
 ASTM D-2435  
 Checked by: JS

Project No.: W1710-06-01  
 8339 WEST 3RD STREET  
 LOS ANGELES, CALIFORNIA  
 Feb 23 Figure B9



WATER ADDED AT 2.0 KSF



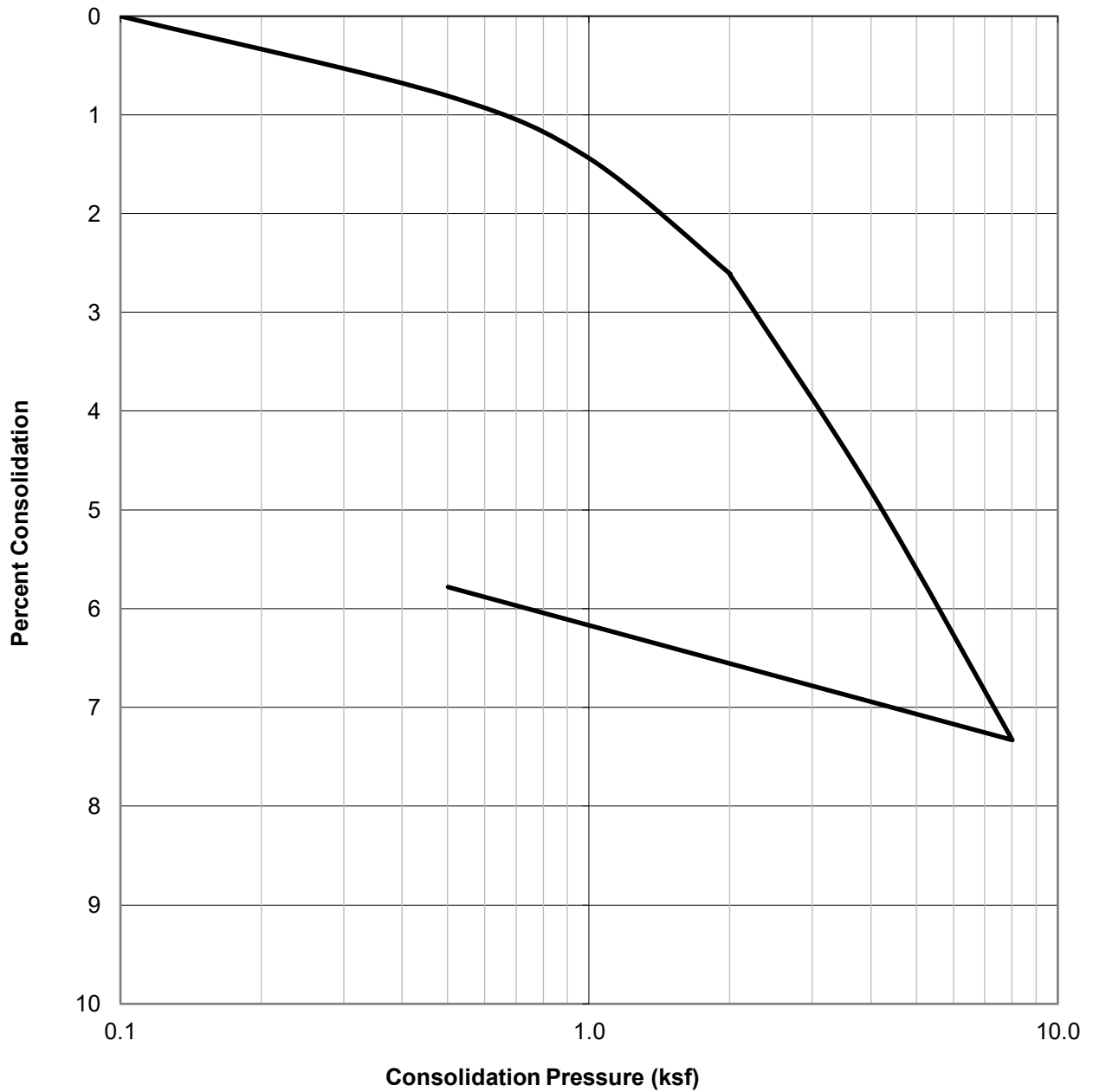
SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B1@20	Clayey Silty Sand, brown	88.5	35.5	33.2




**CONSOLIDATION TEST RESULTS**  
 ASTM D-2435  
 Checked by: JS

Project No.: W1710-06-01  
 8339 WEST 3RD STREET  
 LOS ANGELES, CALIFORNIA  
 Feb 23 Figure B10

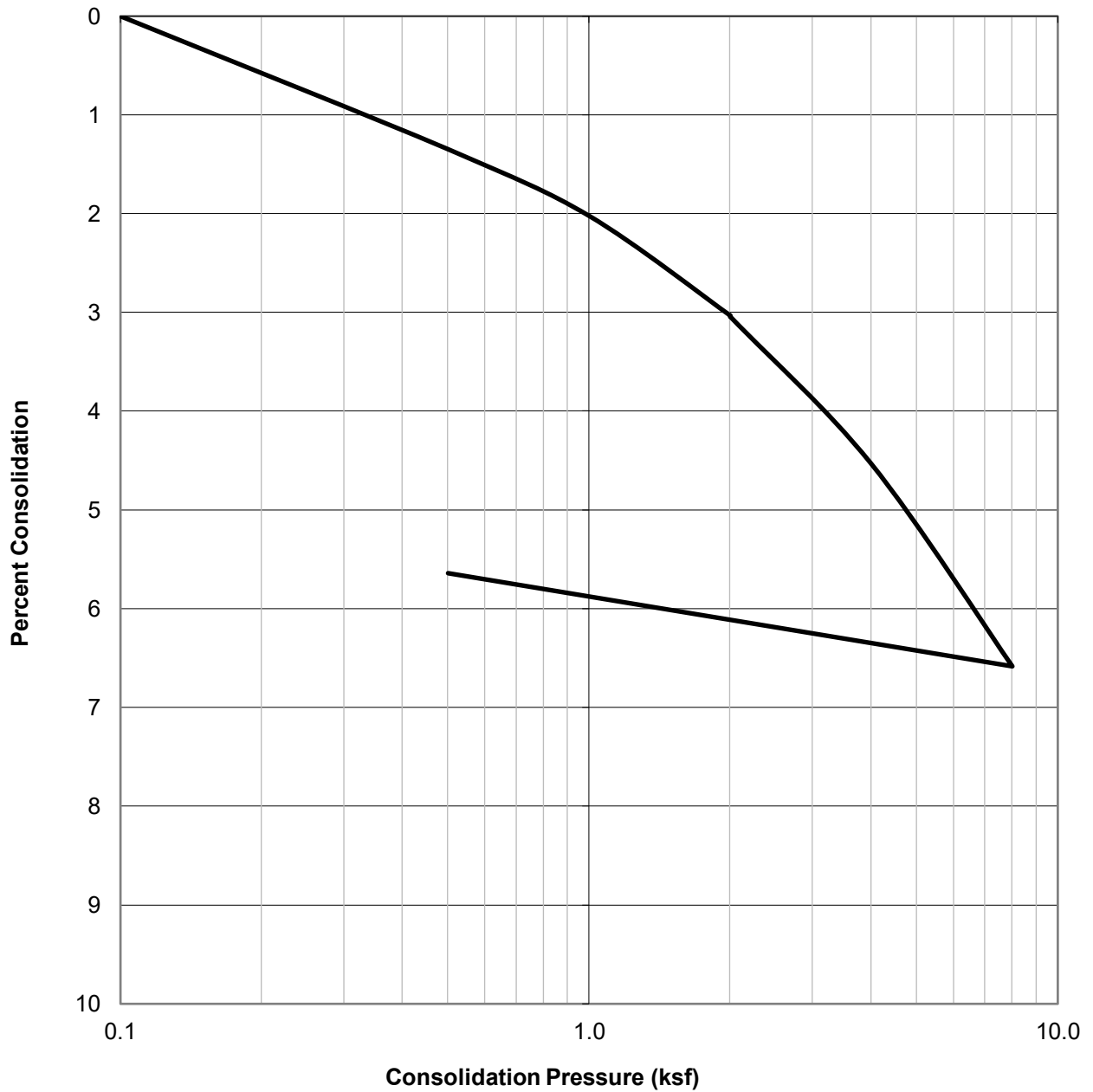
WATER ADDED AT 2.0 KSF




SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B1@30	Silt with Clay, brown	79.0	41.1	41.9

	<b>CONSOLIDATION TEST RESULTS</b> ASTM D-2435	Project No.: W1710-06-01
	Checked by: JS	8339 WEST 3RD STREET LOS ANGELES, CALIFORNIA
	Feb 23	Figure B11

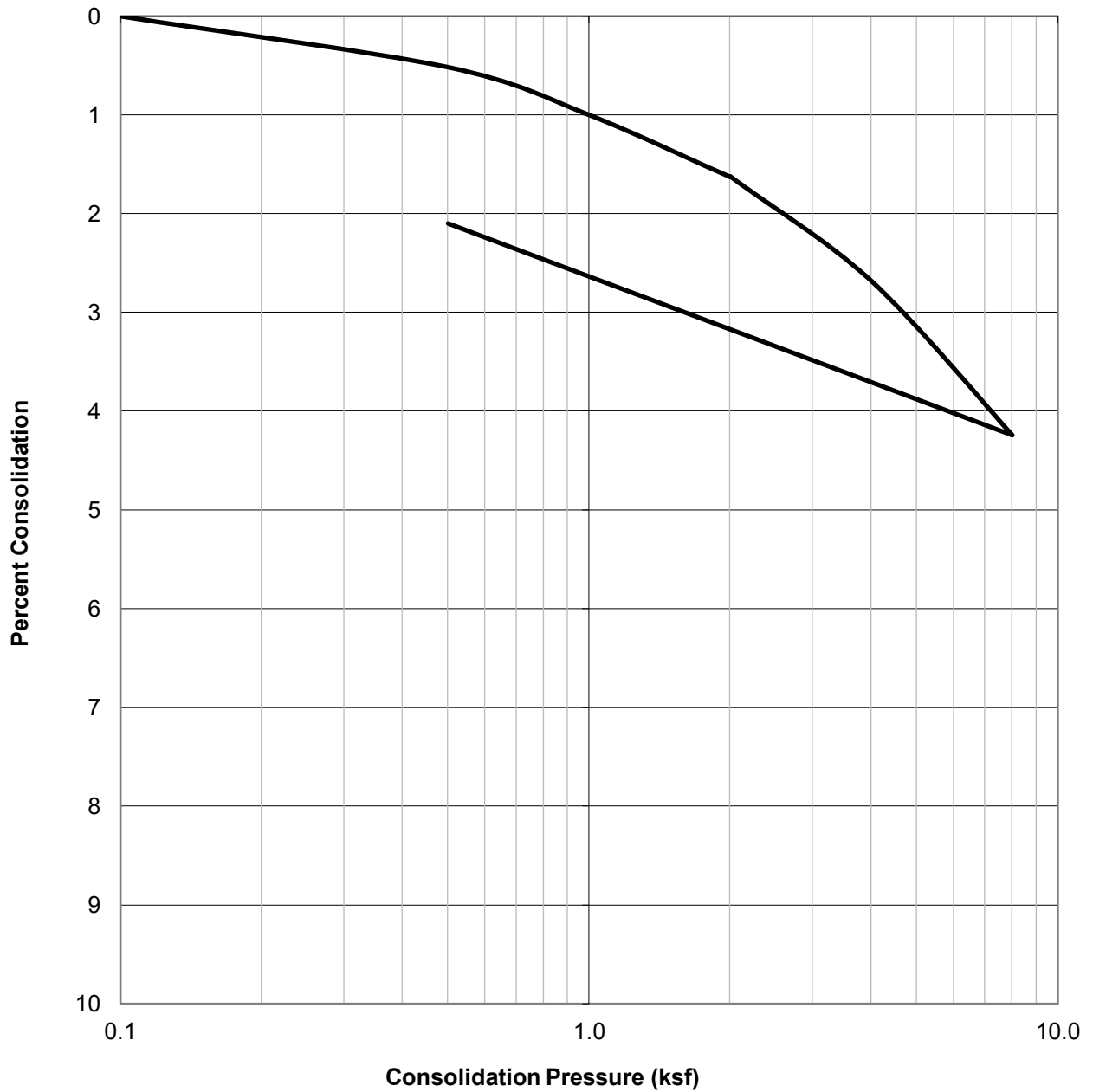
WATER ADDED AT 2.0 KSF



SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B1@35	Silt with Clay, grayish brown	109.7	19.1	19.5

	<b>CONSOLIDATION TEST RESULTS</b> ASTM D-2435	Project No.: W1710-06-01
		8339 WEST 3RD STREET LOS ANGELES, CALIFORNIA
	Checked by: JS	Feb 23 <span style="float: right;">Figure B12</span>

WATER ADDED AT 2.0 KSF



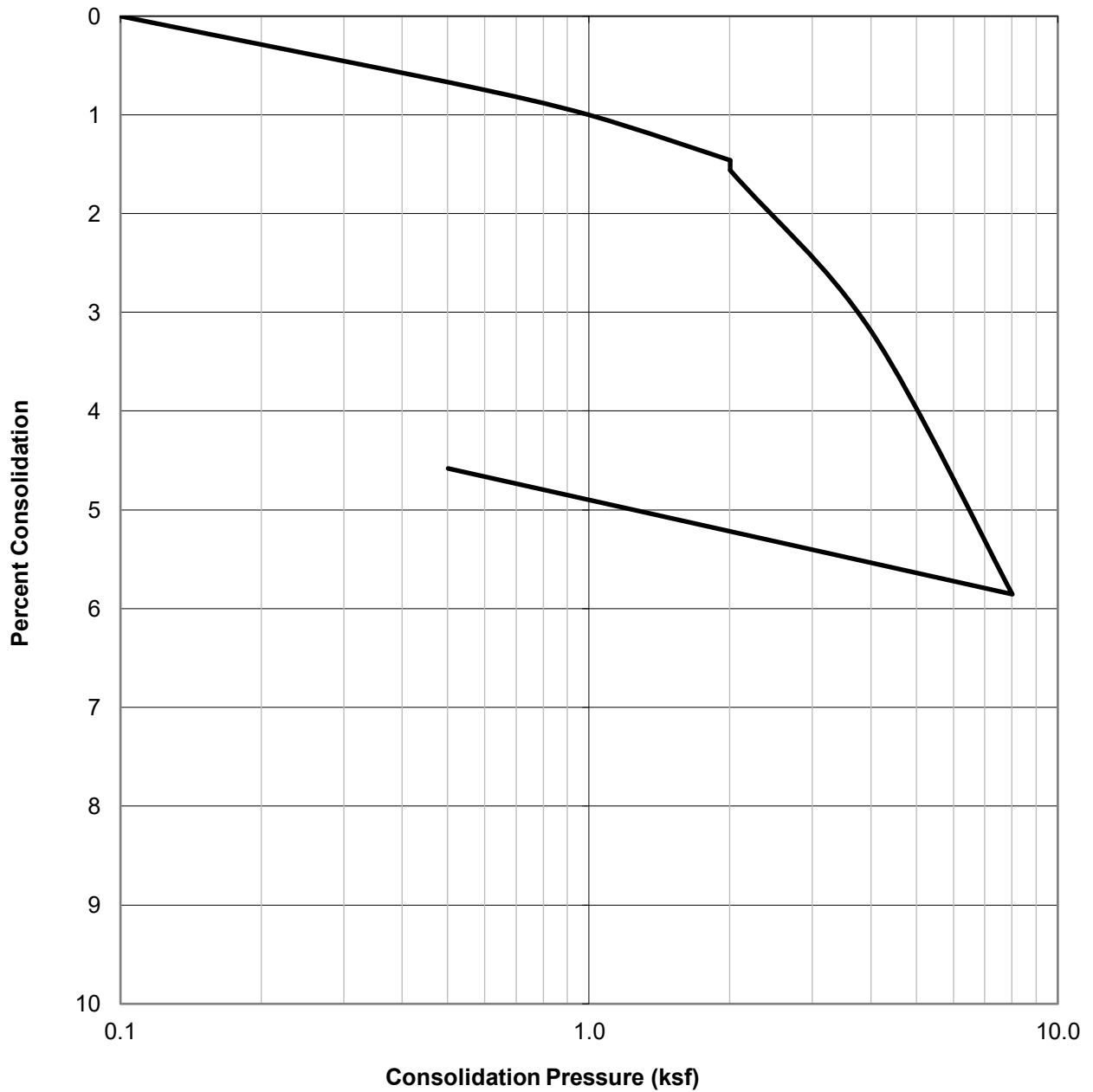
SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B2@5	Silt with Sand, brown	100.4	26.6	28.3



**CONSOLIDATION TEST RESULTS**  
 ASTM D-2435  
 Checked by: JS

Project No.: W1710-06-01  
 8339 WEST 3RD STREET  
 LOS ANGELES, CALIFORNIA  
 Feb 23 Figure B13

WATER ADDED AT 2.0 KSF



SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B2@7.5	Sity Sand, brown	96.9	23.7	30.1



**CONSOLIDATION TEST RESULTS**

ASTM D-2435

Checked by: JS

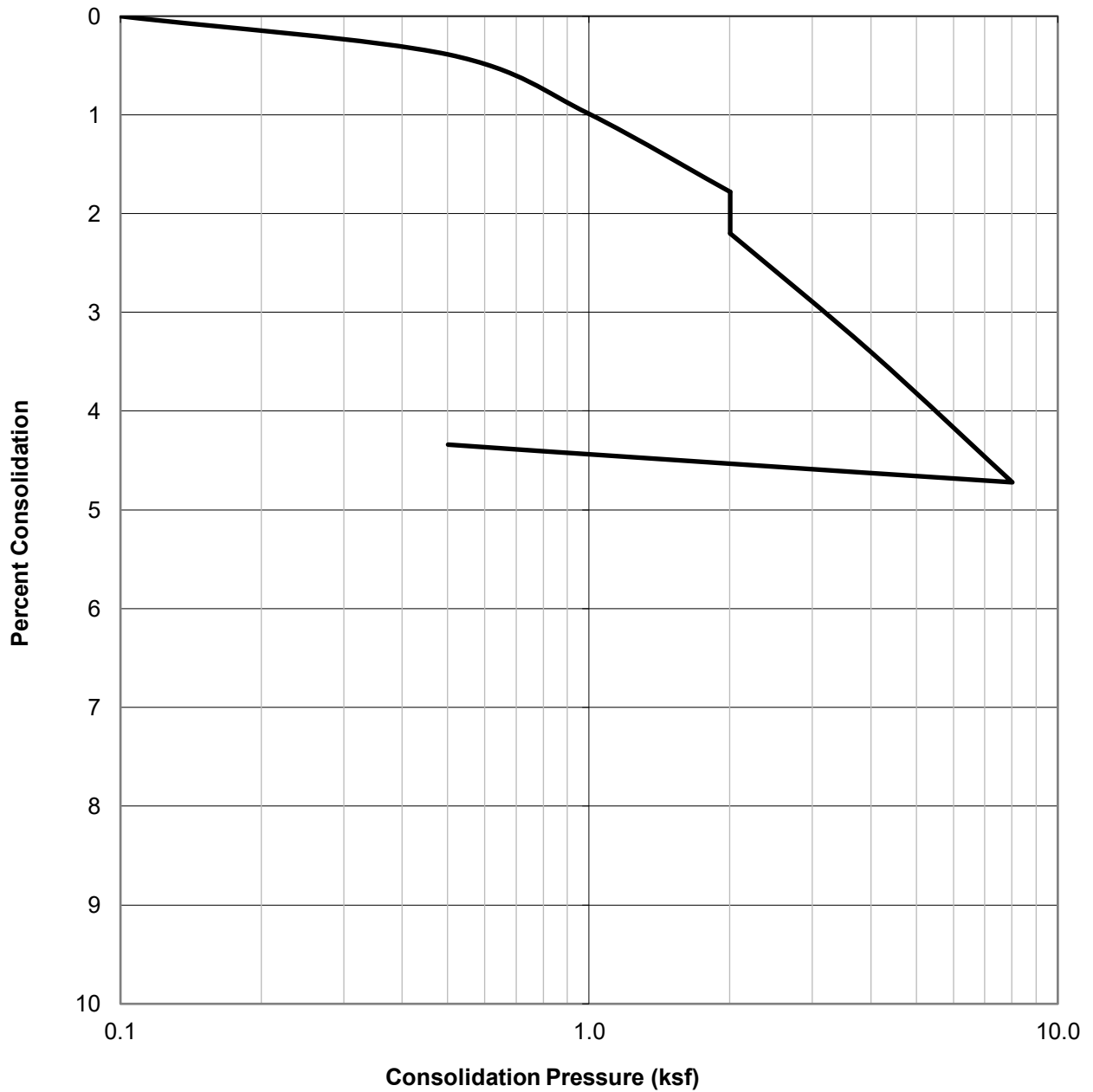
Project No.: W1710-06-01

8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

Feb 23

Figure B14

WATER ADDED AT 2.0 KSF



SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B2@12.5	Silt with Sand, light brown	106.1	12.2	16.8



**CONSOLIDATION TEST RESULTS**

ASTM D-2435

Checked by: JS

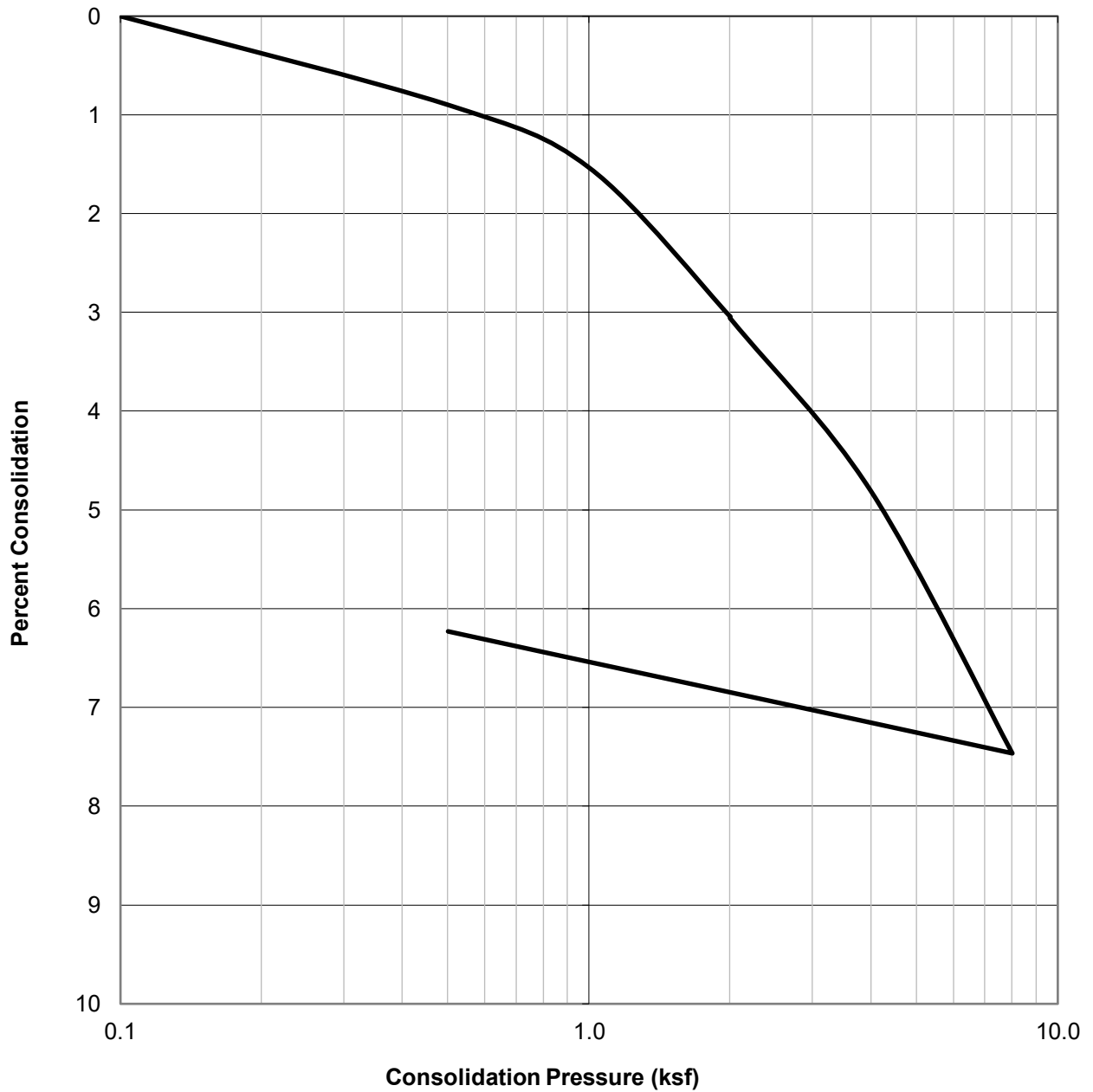
Project No.: W1710-06-01

8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

Feb 23

Figure B15

WATER ADDED AT 2.0 KSF



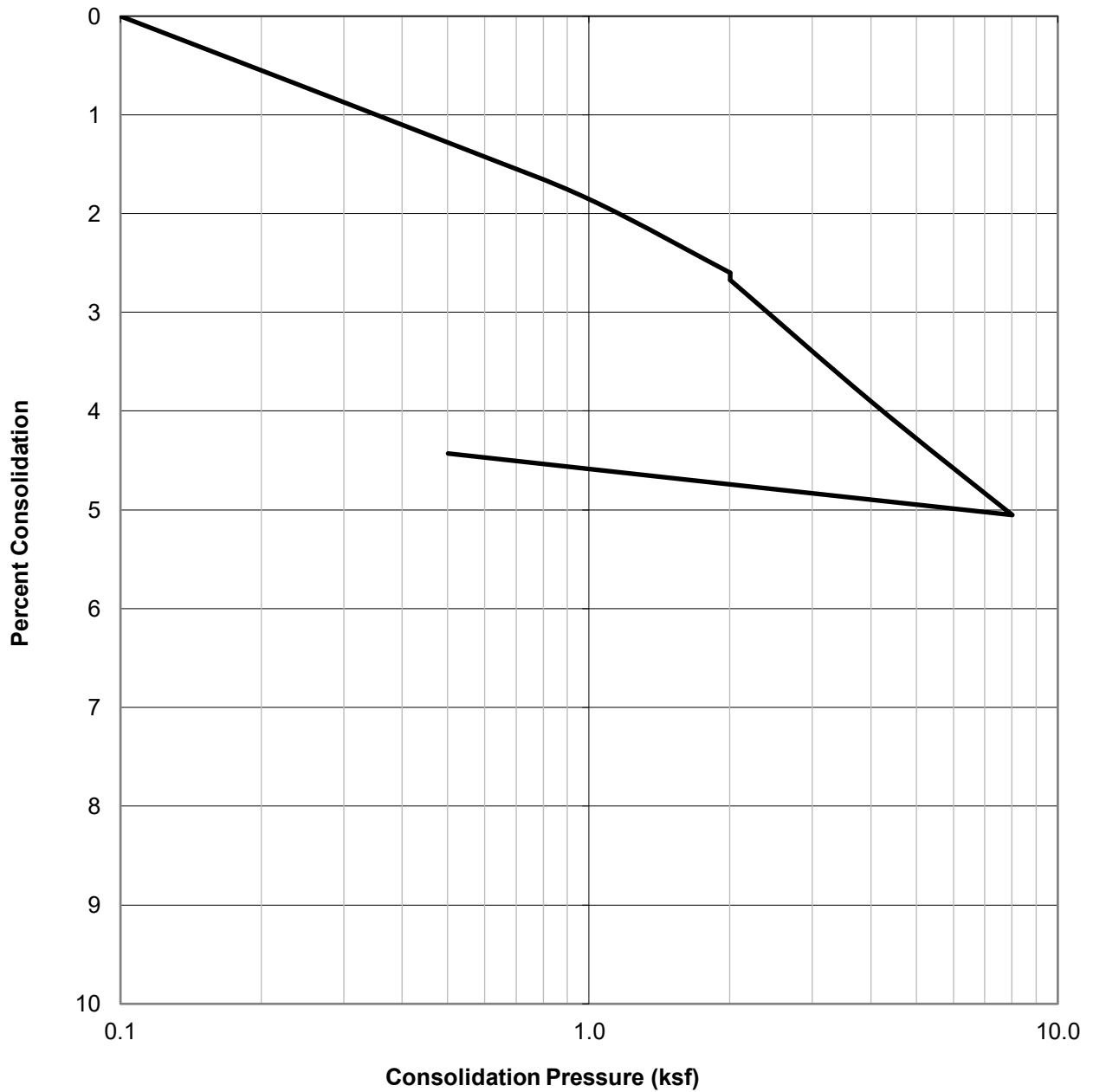
SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B2@20	Sand with Silt, reddish brown	93.4	28.1	28.5




**CONSOLIDATION TEST RESULTS**  
 ASTM D-2435  
 Checked by: JS

Project No.: W1710-06-01  
 8339 WEST 3RD STREET  
 LOS ANGELES, CALIFORNIA  
 Feb 23 Figure B16

WATER ADDED AT 2.0 KSF

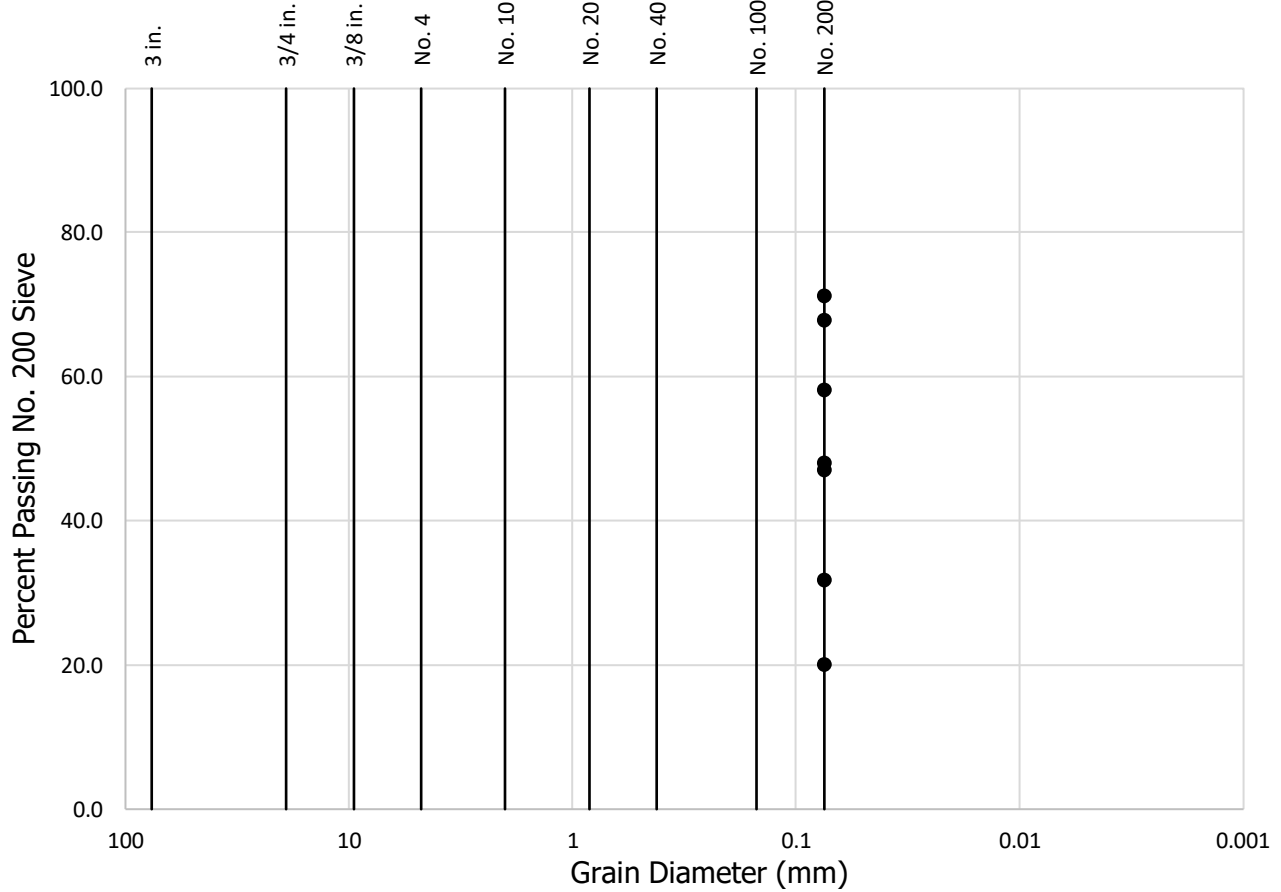


SAMPLE ID.	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B2@25	Sand with Silt, reddish brown	113.3	16.4	17.1

	<b>CONSOLIDATION TEST RESULTS</b> ASTM D-2435	Project No.: W1710-06-01
	Checked by: JS	8339 WEST 3RD STREET LOS ANGELES, CALIFORNIA
	Feb 23	Figure B17



GRAVEL		SAND			SILT AND CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	



Sample No.	Percent Passing No. 200 Sieve
B1 @ 10'	48.0
B1 @ 12.5'	47.1
B1 @ 20'	71.2
B1 @ 22'	58.2
B1 @ 30'	67.8
B1 @ 32'	20.1
B1 @ 37'	31.8



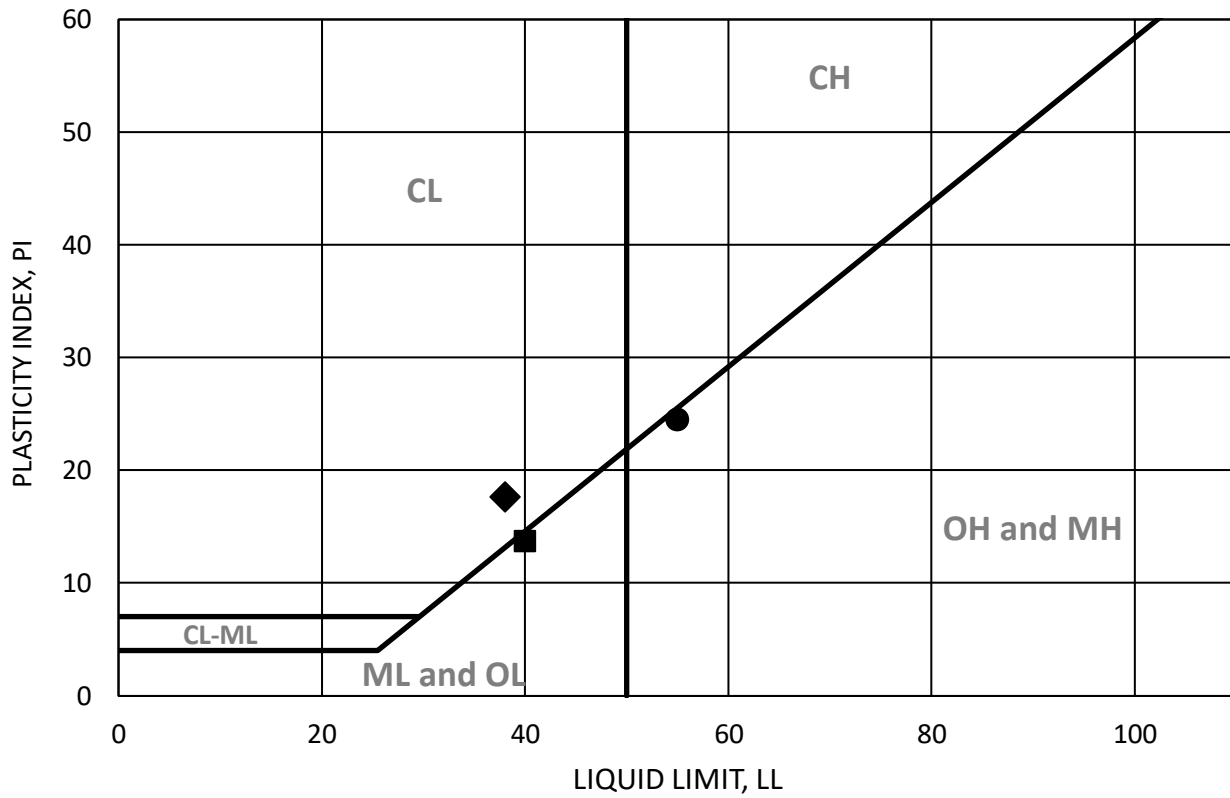
**GRAIN SIZE ANALYSIS**  
ASTM D-1140

Checked by: JS

Project No.: W1710-06-01

8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

Feb 23 Figure B17



SYMBOL	BORING	DEPTH (ft)	LL	PL	PI	MOISTURE CONTENT AT SATURATION	SOIL BEHAVIOR
■	B1	22	40	26	14	19	ML
◆	B1	37	38	20	18	14.8	CL
▲	B1	17.5	N/P	N/P	N/P		N/P
●	B1	27.5	55	31	24		MH
□							
◇							
△							
○							

N/P = Non-Plastic



**ATTERBERG LIMITS**

ASTM D-4318

Checked by: JS

Project No.: W1710-06-01

8339 WEST 3RD STREET  
LOS ANGELES, CALIFORNIA

Feb 23

Figure B19

## B2@0-5'

MOLDED SPECIMEN		BEFORE TEST	AFTER TEST
Specimen Diameter	(in.)	4.0	4.0
Specimen Height	(in.)	1.0	1.1
Wt. Comp. Soil + Mold	(gm)	719.2	778.0
Wt. of Mold	(gm)	376.2	376.2
Specific Gravity	(Assumed)	2.7	2.7
Wet Wt. of Soil + Cont.	(gm)	515.7	778.0
Dry Wt. of Soil + Cont.	(gm)	472.5	293.7
Wt. of Container	(gm)	215.7	376.2
Moisture Content	(%)	16.8	36.8
Wet Density	(pcf)	103.5	121.0
Dry Density	(pcf)	88.6	88.5
Void Ratio		0.9	1.1
Total Porosity		0.5	0.5
Pore Volume	(cc)	98.2	116.7
Degree of Saturation	(%) [ $S_{meas}$ ]	50.6	92.6

Date	Time	Pressure (psi)	Elapsed Time (min)	Dial Readings (in.)
1/20/2023	10:00	1.0	0	0.2778
1/20/2023	10:10	1.0	10	0.2796
Add Distilled Water to the Specimen				
1/21/2023	10:00	1.0	1430	0.369
1/21/2023	11:00	1.0	1490	0.369

Expansion Index (EI meas) =	89.4
Expansion Index ( Report ) =	<b>89</b>

Expansion Index, $EI_{50}$	CBC CLASSIFICATION *	UBC CLASSIFICATION **
0-20	Non-Expansive	Very Low
21-50	Expansive	Low
51-90	Expansive	Medium
91-130	Expansive	High
>130	Expansive	Very High

\* Reference: 2019 California Building Code, Section 1803.5.3

\*\* Reference: 1997 Uniform Building Code, Table 18-I-B.

	<b>EXPANSION INDEX TEST RESULTS</b>	Project No.: W1710-06-01
	ASTM D-4829	8339 WEST 3RD STREET LOS ANGELES, CALIFORNIA
	Checked by: JS	Feb 23 <span style="float: right;">Figure B20</span>

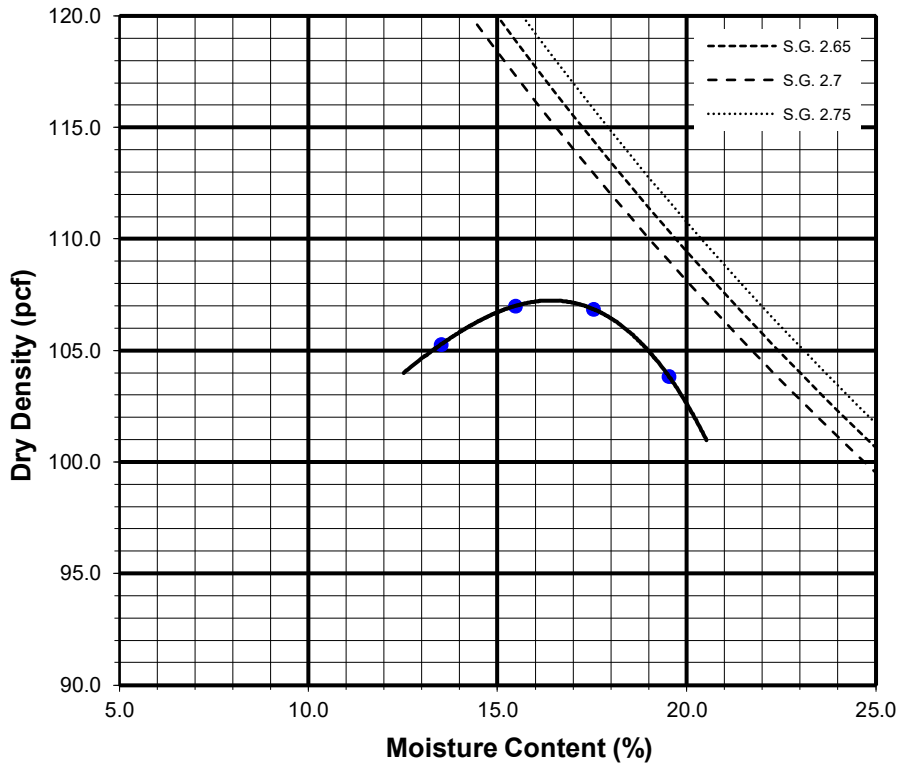
Sample No:

<b>B2@0-5'</b>	Silty with Clay and Sand, dark gray
----------------	-------------------------------------


TEST NO.		1	2	3	4	5	6
Wt. Compacted Soil + Mold	(g)	6027	6088	6119	6097		
Weight of Mold	(g)	4222	4222	4222	4222	4222	
Net Weight of Soil	(g)	1805	1866	1897	1875	-4222	
Wet Weight of Soil + Cont.	(g)	707.8	711.4	716.8	725.2		
Dry Weight of Soil + Cont.	(g)	645.5	640.8	637.4	636.8		
Weight of Container	(g)	184.4	184.2	184.4	184.0		
Moisture Content	(%)	13.5	15.5	17.5	19.5		
Wet Density	(pcf)	119.5	123.5	125.6	124.1	-279.5	
Dry Density	(pcf)	105.3	107.0	106.9	103.9		

**Maximum Dry Density (pcf) 107.5**

**Optimum Moisture Content (%) 16.5**



Preparation Method: A

	<b>COMPACTION CHARACTERISTICS USING MODIFIED EFFORT TEST RESULTS</b>	Project No.: W1710-06-01
	ASTM D-1557	8339 WEST 3RD STREET LOS ANGELES, CALIFORNIA
	Checked by: JS	Feb 23 <span style="float: right;">Figure B21</span>

SUMMARY OF LABORATORY  
 POTENTIAL OF HYDROGEN (pH) AND RESISTIVITY TEST RESULTS  
 AASHTO T289 ASTM D4972 and AASHTO T288 ASTM G187


Sample No.	pH	Resistivity (ohm centimeters)
B2@0-5'	8.9	1600 (Corrosive)

SUMMARY OF LABORATORY CHLORIDE CONTENT TEST RESULTS  
 AASHTO T291 ASTM C1218

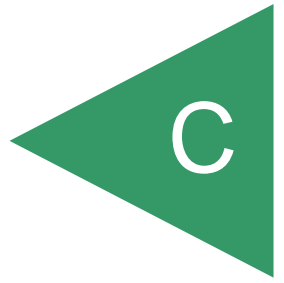
Sample No.	Chloride Ion Content (%)
B-2@0-5	0.020

SUMMARY OF LABORATORY WATER SOLUBLE SULFATE TEST RESULTS  
 AASHTO T290 ASTM C1580

Sample No.	Water Soluble Sulfate (% SO <sub>4</sub> )	Sulfate Exposure
B-2@0-5	0.000	S0

 <b>GEOCON</b>	<b>CORROSIVITY TEST RESULTS</b>	Project No.: W1710-06-01
	Checked by: JS	8339 WEST 3RD STREET LOS ANGELES, CALIFORNIA
		Feb 23 <span style="float: right;">Figure B22</span>

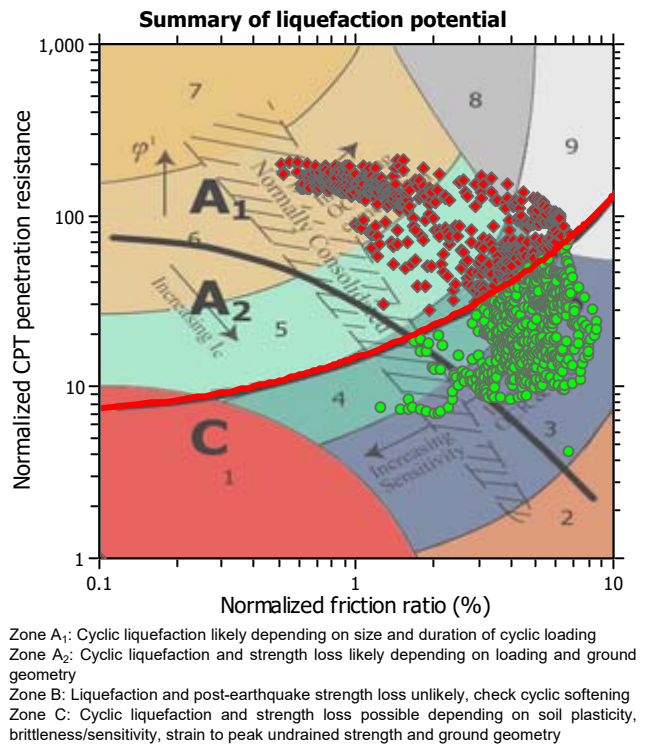
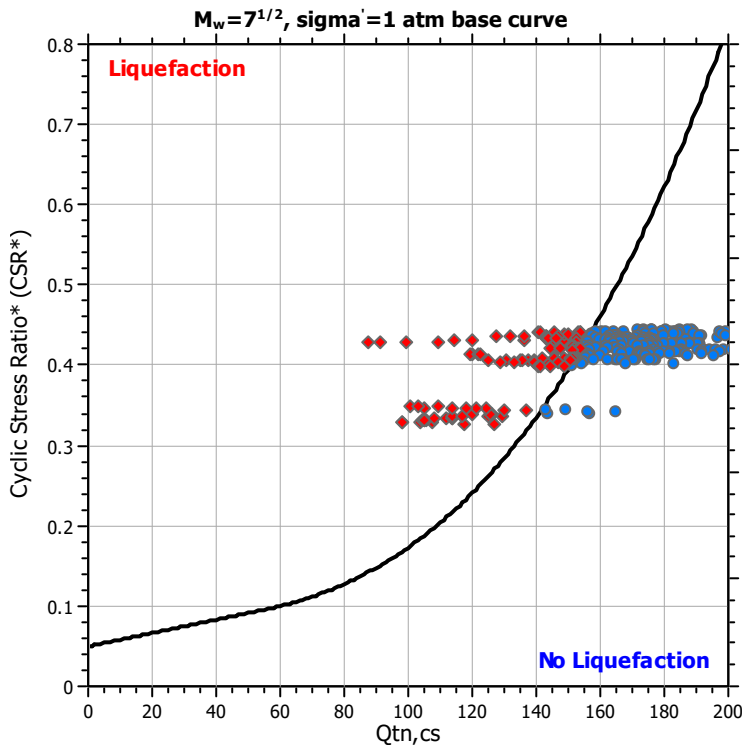
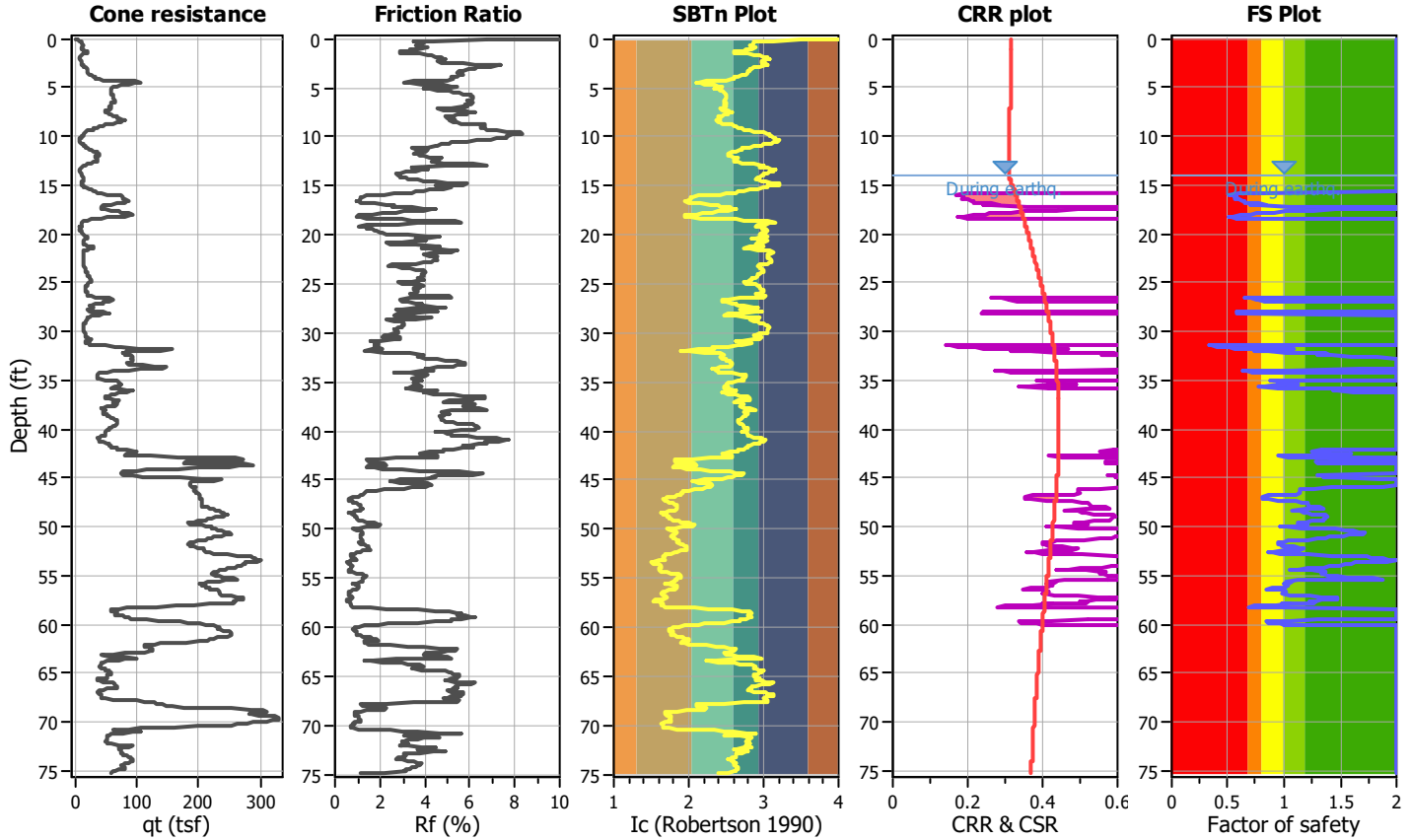
APPENDIX



**APPENDIX C**  
**ANALYSES OF LIQUEFACTION POTENTIAL**

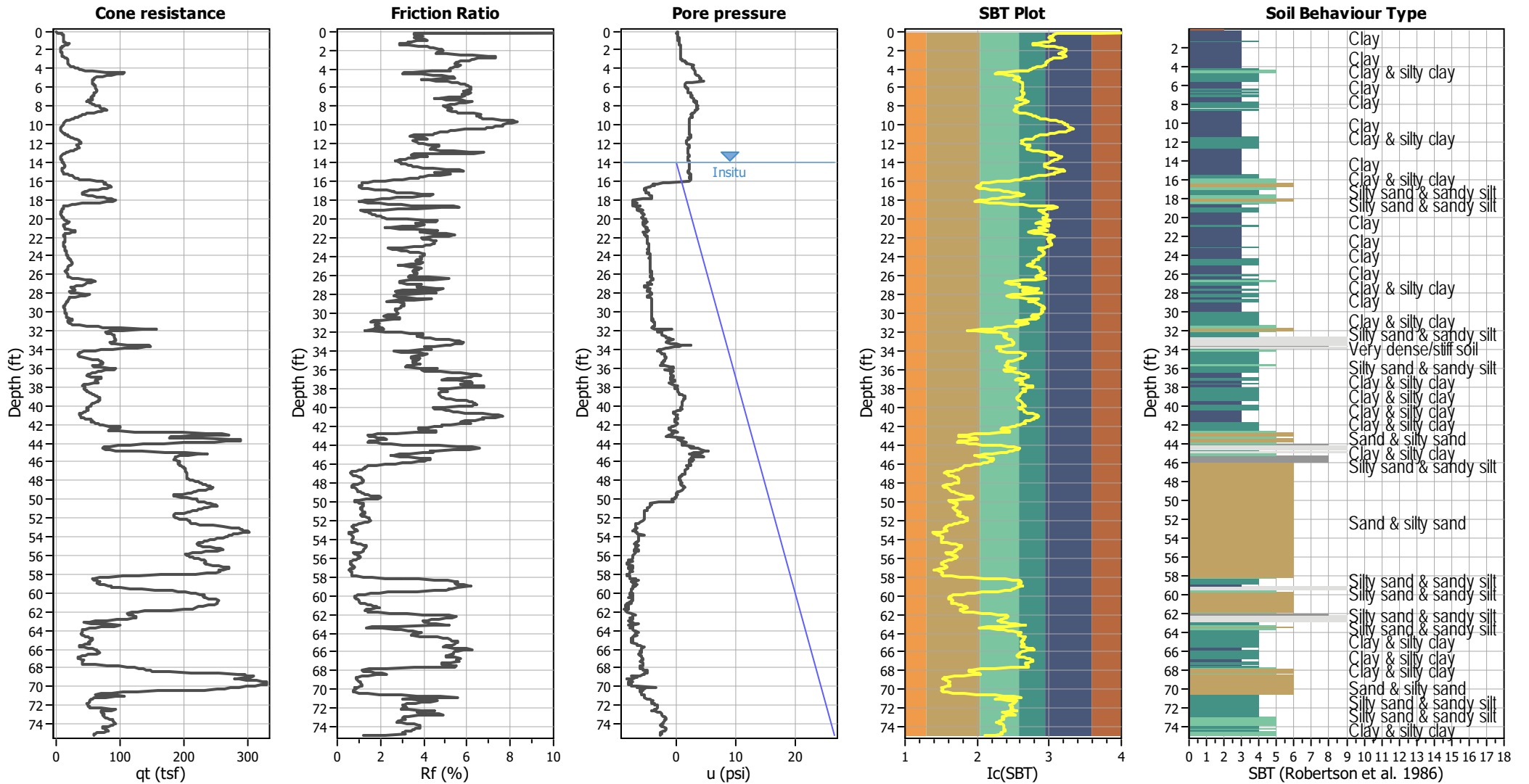
**LIQUEFACTION ANALYSIS REPORT**
**Project title : 8339 W 3rd Street, Los Angeles**
**Location : 8339 W 3rd Street, Los Angeles**
**CPT file : CPT-1**
**Input parameters and analysis data**

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	14.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	14.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	60.00 ft
Earthquake magnitude $M_w$ :	6.67	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.66	Unit weight calculation:	Based on SBT	$K_0$ applied:	Yes		





### CPT basic interpretation plots



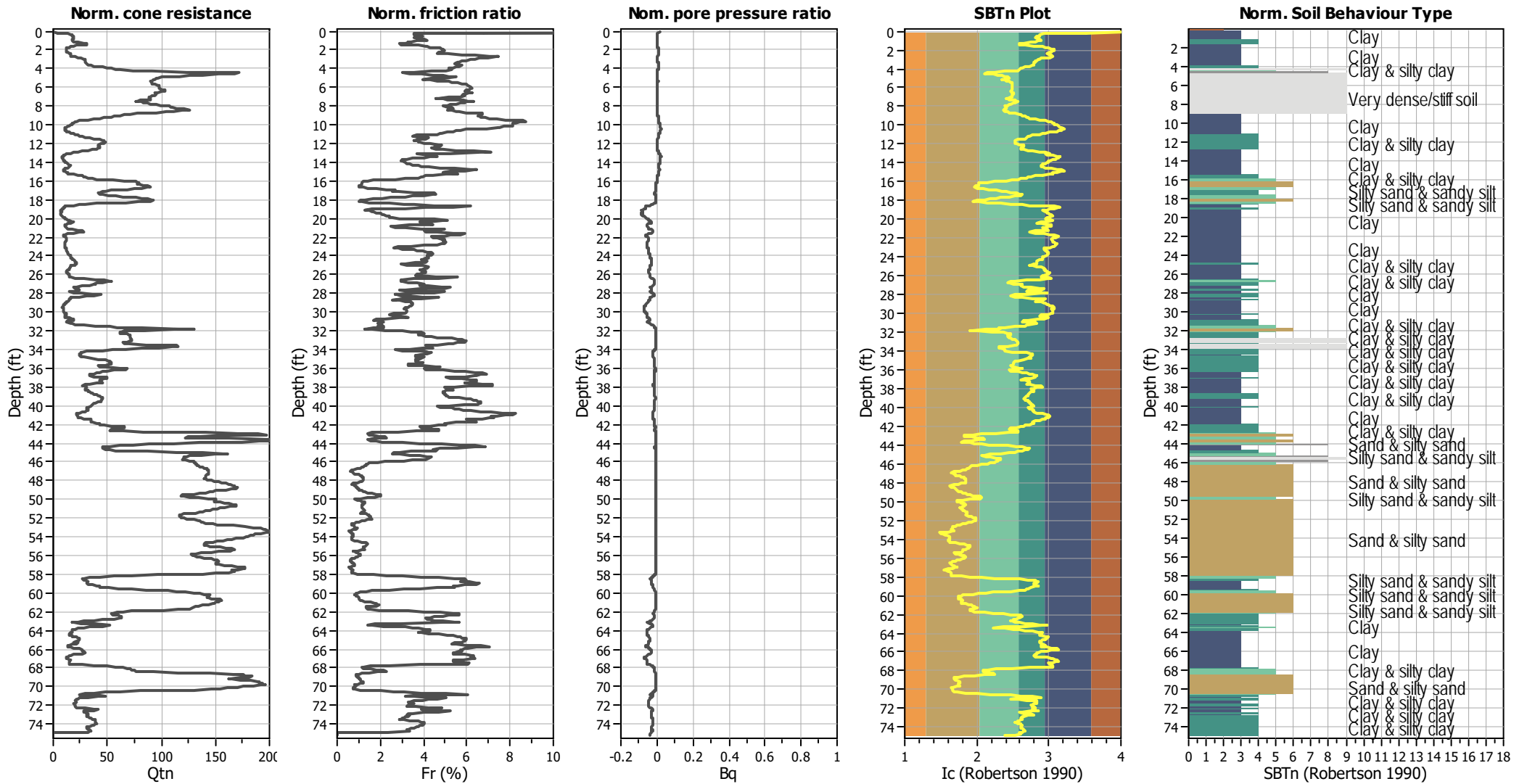
#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	$K_{\alpha}$ applied:	Yes
Earthquake magnitude $M_w$ :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

#### SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

### CPT basic interpretation plots (normalized)



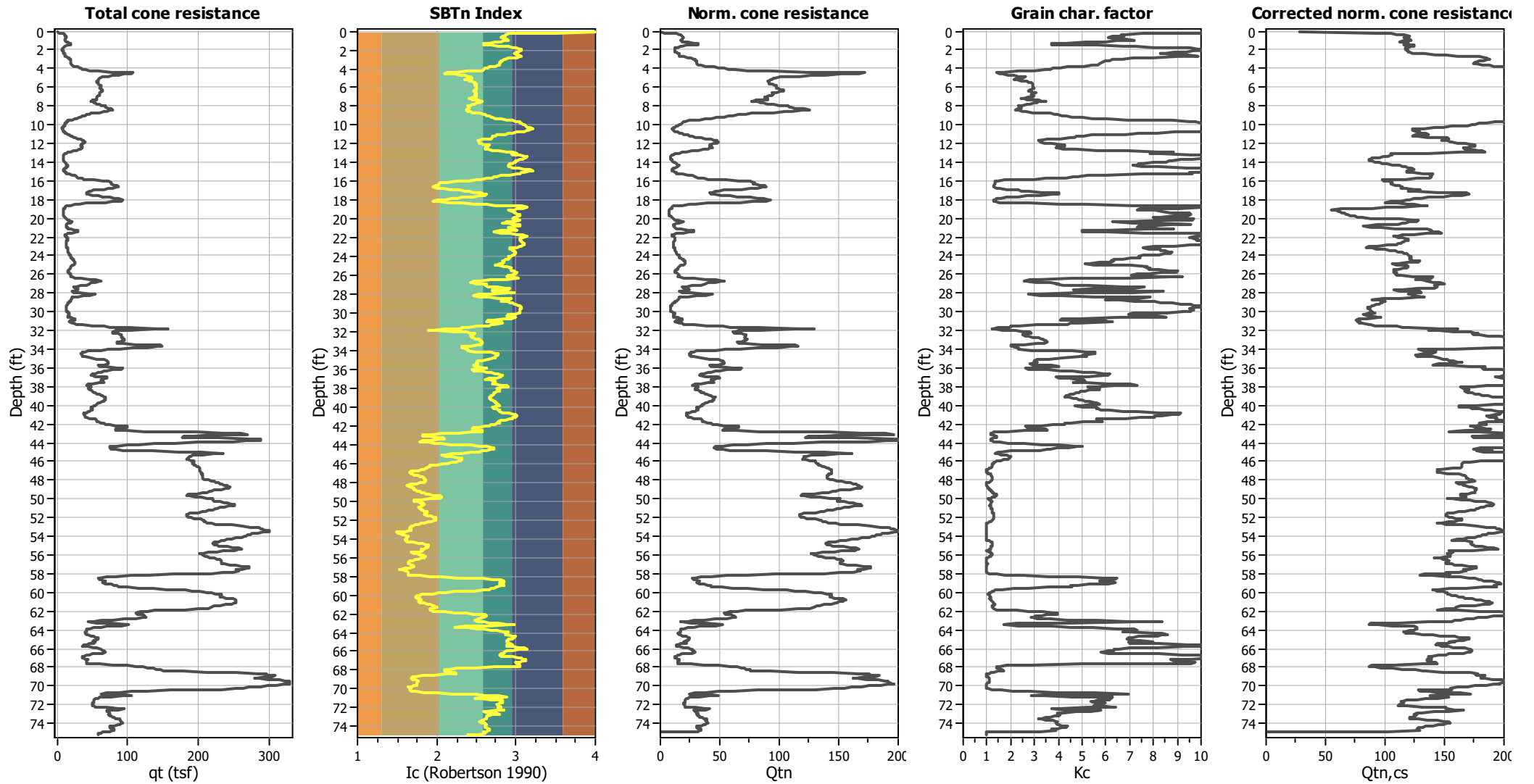
#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>v</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

#### SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

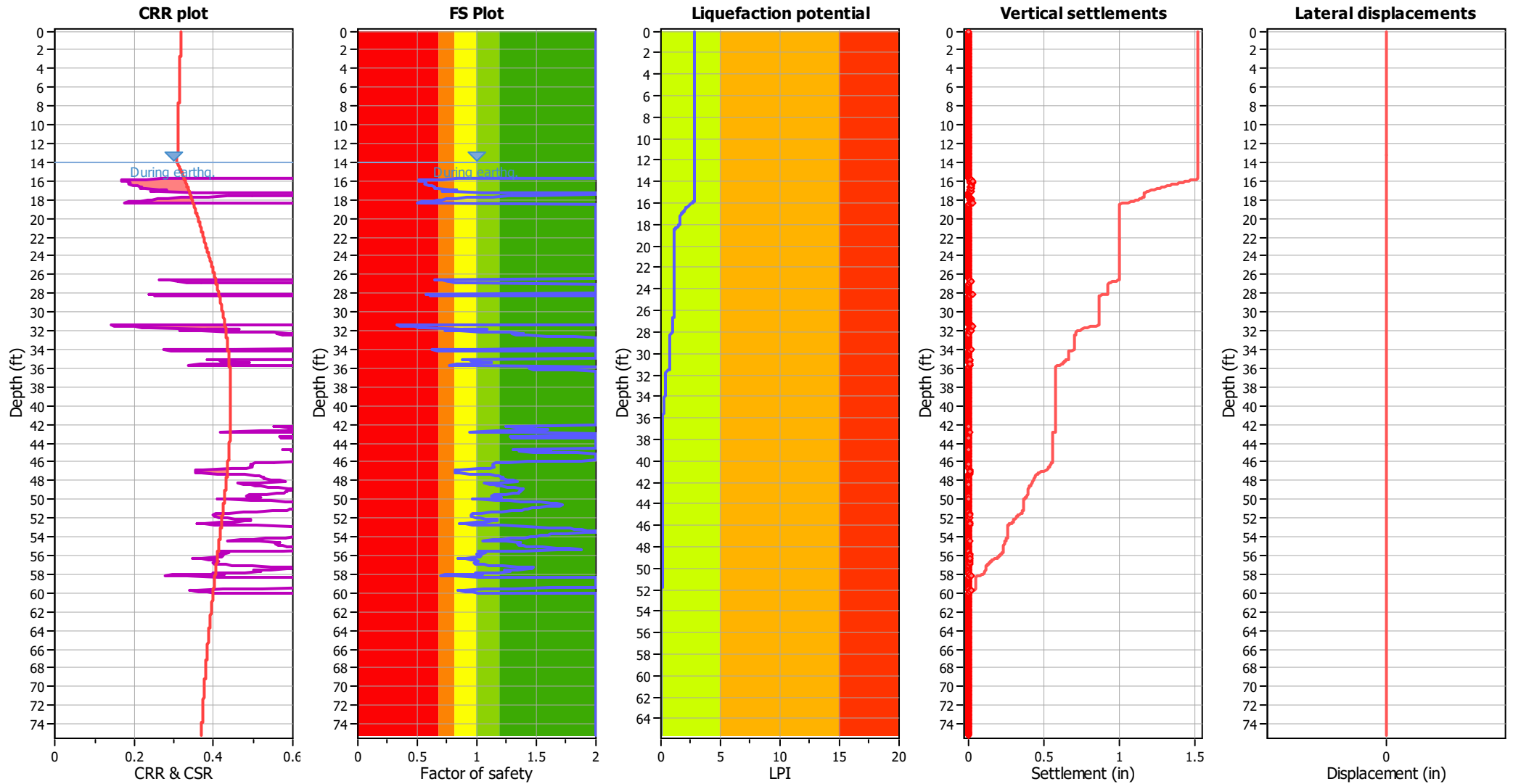
### Liquefaction analysis overall plots (intermediate results)



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	$K_{cs}$ applied:	Yes
Earthquake magnitude $M_w$ :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

### Liquefaction analysis overall plots



**Input parameters and analysis data**

Analysis method:	NCEER (1998)	Depth to water table (earthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	$K_{\sigma}$ applied:	Yes
Earthquake magnitude $M_w$ :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

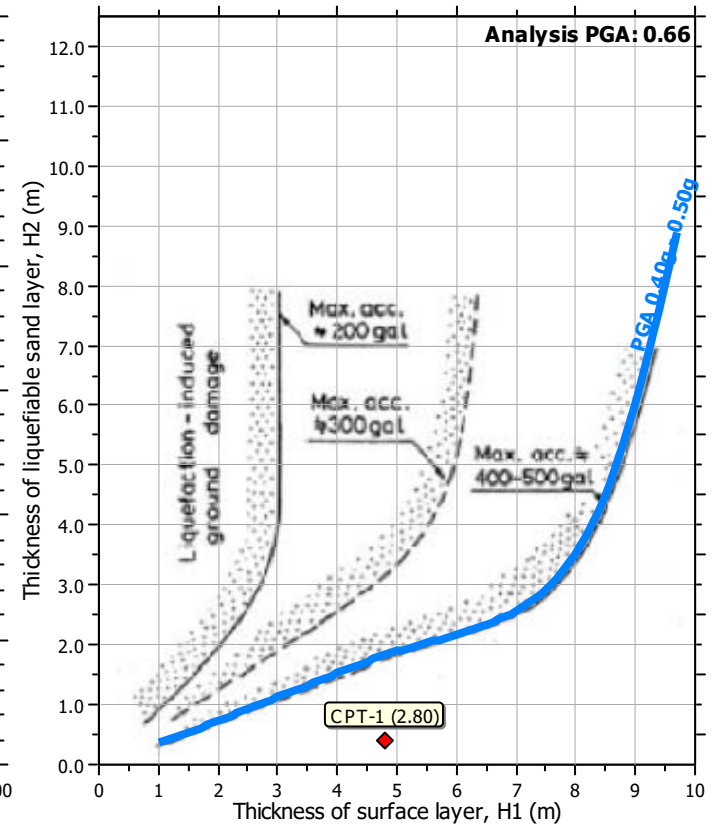
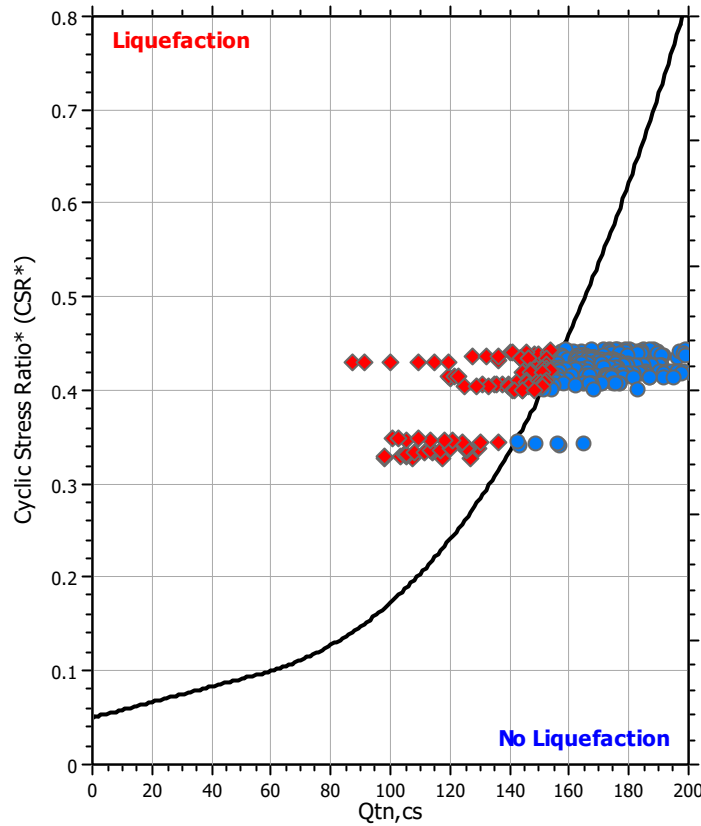
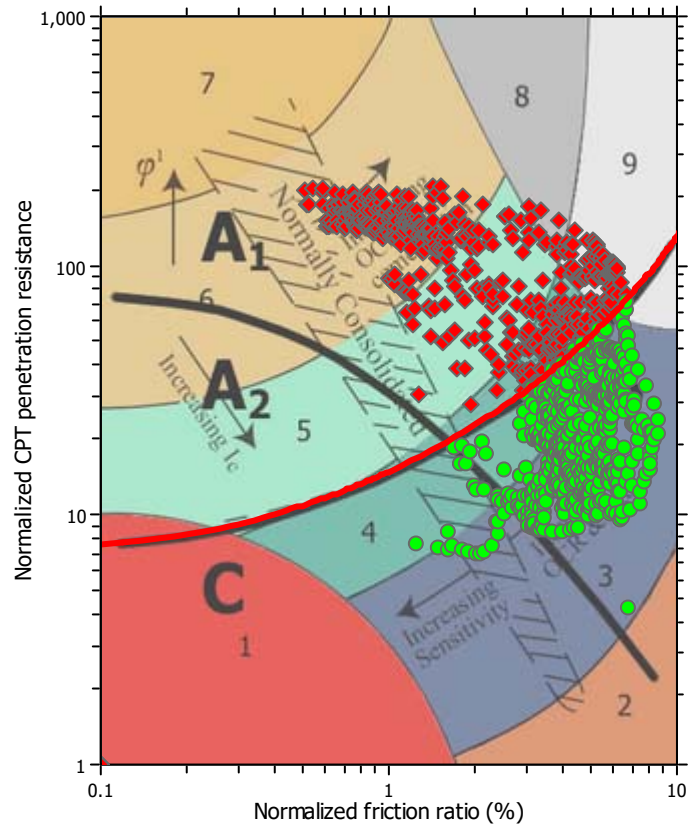
**F.S. color scheme**

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

**LPI color scheme**

- Very high risk
- High risk
- Low risk

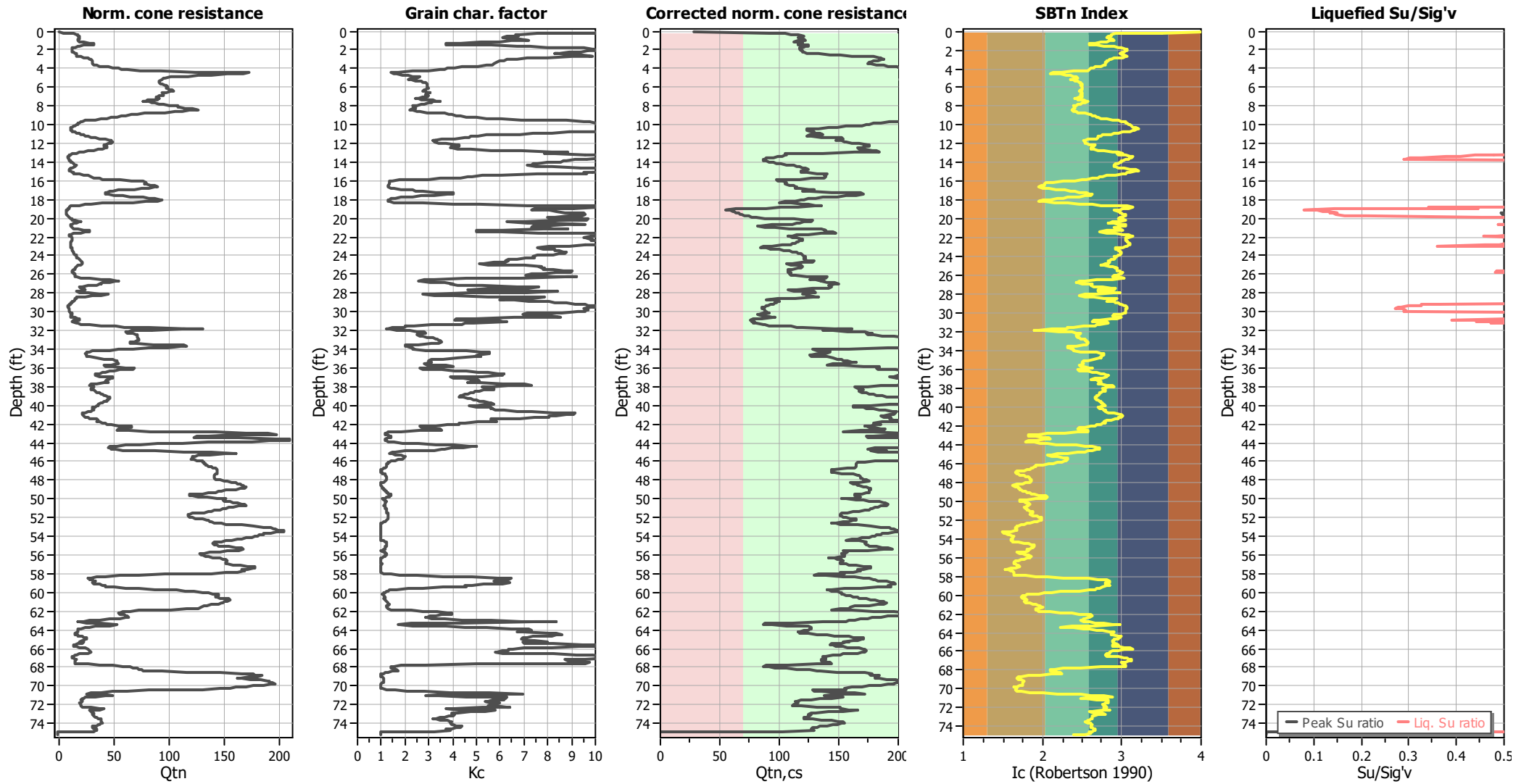
### Liquefaction analysis summary plots



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>o</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

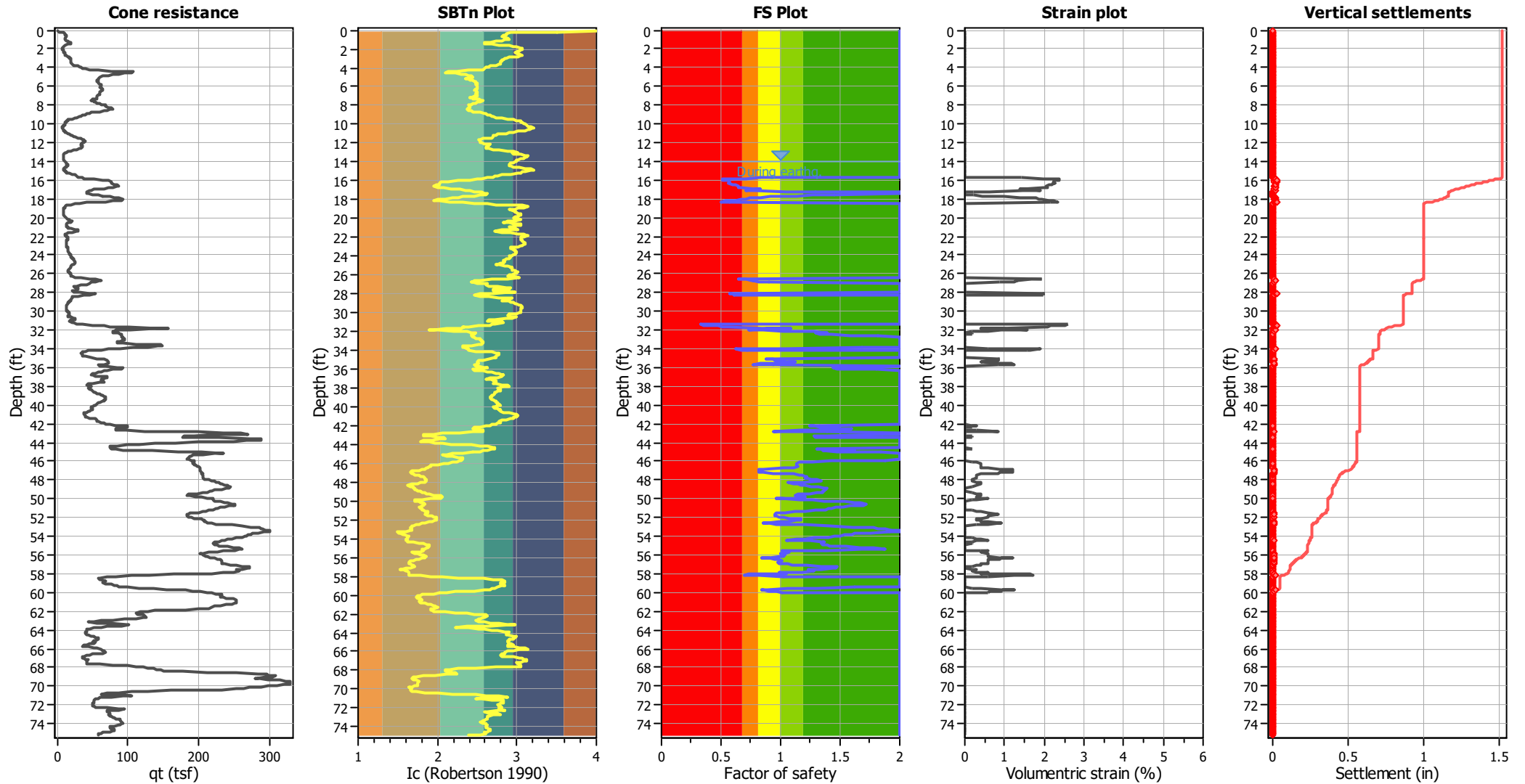
### Check for strength loss plots (Robertson (2010))



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>c</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

### Estimation of post-earthquake settlements



**Abbreviations**

- qt: Total cone resistance (cone resistance  $q_c$  corrected for pore water effects)
- I<sub>c</sub>: Soil Behaviour Type Index
- FS: Calculated Factor of Safety against liquefaction
- Volumetric strain: Post-liquefaction volumetric strain





<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
20.36	123.58	2.00	0.00	1.00	0.00	20.43	120.77	2.00	0.00	1.00	0.00
20.47	117.63	2.00	0.00	1.00	0.00	20.57	114.38	2.00	0.00	1.00	0.00
20.61	111.10	2.00	0.00	1.00	0.00	20.67	105.04	2.00	0.00	1.00	0.00
20.74	94.33	2.00	0.00	1.00	0.00	20.83	84.34	2.00	0.00	1.00	0.00
20.87	82.27	2.00	0.00	1.00	0.00	20.96	87.24	2.00	0.00	1.00	0.00
21.01	95.94	2.00	0.00	1.00	0.00	21.07	108.76	2.00	0.00	1.00	0.00
21.14	124.68	2.00	0.00	1.00	0.00	21.21	135.66	2.00	0.00	1.00	0.00
21.27	138.94	2.00	0.00	1.00	0.00	21.36	137.69	2.00	0.00	1.00	0.00
21.39	139.89	2.00	0.00	1.00	0.00	21.47	144.82	2.00	0.00	1.00	0.00
21.54	147.78	2.00	0.00	1.00	0.00	21.62	145.28	2.00	0.00	1.00	0.00
21.66	134.98	2.00	0.00	1.00	0.00	21.76	124.63	2.00	0.00	1.00	0.00
21.80	114.22	2.00	0.00	1.00	0.00	21.85	110.73	2.00	0.00	1.00	0.00
21.94	107.67	2.00	0.00	1.00	0.00	21.99	108.26	2.00	0.00	1.00	0.00
22.07	110.87	2.00	0.00	1.00	0.00	22.12	115.20	2.00	0.00	1.00	0.00
22.21	118.27	2.00	0.00	1.00	0.00	22.25	119.92	2.00	0.00	1.00	0.00
22.35	119.79	2.00	0.00	1.00	0.00	22.38	118.65	2.00	0.00	1.00	0.00
22.45	117.60	2.00	0.00	1.00	0.00	22.52	116.15	2.00	0.00	1.00	0.00
22.60	114.44	2.00	0.00	1.00	0.00	22.66	112.86	2.00	0.00	1.00	0.00
22.74	111.55	2.00	0.00	1.00	0.00	22.79	109.68	2.00	0.00	1.00	0.00
22.87	107.91	2.00	0.00	1.00	0.00	22.92	102.74	2.00	0.00	1.00	0.00
22.97	94.31	2.00	0.00	1.00	0.00	23.04	86.43	2.00	0.00	1.00	0.00
23.10	84.62	2.00	0.00	1.00	0.00	23.19	88.45	2.00	0.00	1.00	0.00
23.23	92.78	2.00	0.00	1.00	0.00	23.30	96.43	2.00	0.00	1.00	0.00
23.36	100.55	2.00	0.00	1.00	0.00	23.45	103.55	2.00	0.00	1.00	0.00
23.50	108.17	2.00	0.00	1.00	0.00	23.58	111.57	2.00	0.00	1.00	0.00
23.63	114.87	2.00	0.00	1.00	0.00	23.71	116.36	2.00	0.00	1.00	0.00
23.77	118.01	2.00	0.00	1.00	0.00	23.85	119.04	2.00	0.00	1.00	0.00
23.90	119.25	2.00	0.00	1.00	0.00	23.95	119.82	2.00	0.00	1.00	0.00
24.02	120.44	2.00	0.00	1.00	0.00	24.12	121.47	2.00	0.00	1.00	0.00
24.18	121.41	2.00	0.00	1.00	0.00	24.22	121.38	2.00	0.00	1.00	0.00
24.30	121.14	2.00	0.00	1.00	0.00	24.36	121.24	2.00	0.00	1.00	0.00
24.42	121.82	2.00	0.00	1.00	0.00	24.48	123.78	2.00	0.00	1.00	0.00
24.56	126.28	2.00	0.00	1.00	0.00	24.61	129.69	2.00	0.00	1.00	0.00
24.70	128.34	2.00	0.00	1.00	0.00	24.74	120.02	2.00	0.00	1.00	0.00
24.83	110.96	2.00	0.00	1.00	0.00	24.87	106.63	2.00	0.00	1.00	0.00
24.97	110.07	2.00	0.00	1.00	0.00	25.01	115.00	2.00	0.00	1.00	0.00
25.07	117.76	2.00	0.00	1.00	0.00	25.14	119.71	2.00	0.00	1.00	0.00
25.22	119.51	2.00	0.00	1.00	0.00	25.28	118.19	2.00	0.00	1.00	0.00
25.37	115.83	2.00	0.00	1.00	0.00	25.41	111.47	2.00	0.00	1.00	0.00
25.50	108.96	2.00	0.00	1.00	0.00	25.54	107.23	2.00	0.00	1.00	0.00
25.63	107.23	2.00	0.00	1.00	0.00	25.66	107.36	2.00	0.00	1.00	0.00
25.74	107.85	2.00	0.00	1.00	0.00	25.81	108.69	2.00	0.00	1.00	0.00
25.86	109.50	2.00	0.00	1.00	0.00	25.93	109.69	2.00	0.00	1.00	0.00
25.99	109.13	2.00	0.00	1.00	0.00	26.08	109.22	2.00	0.00	1.00	0.00
26.13	113.46	2.00	0.00	1.00	0.00	26.18	123.36	2.00	0.00	1.00	0.00
26.25	136.84	2.00	0.00	1.00	0.00	26.32	140.26	2.00	0.00	1.00	0.00
26.39	138.45	2.00	0.00	1.00	0.00	26.48	127.84	2.00	0.00	1.00	0.00
26.52	125.10	0.65	1.94	1.00	0.01	26.58	130.64	0.71	1.68	1.00	0.01

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
26.69	135.10	0.76	1.31	1.00	0.02	26.73	137.51	0.79	1.28	1.00	0.01
26.78	135.73	0.77	1.30	1.00	0.01	26.85	139.63	0.82	1.25	1.00	0.01
26.93	146.05	0.91	0.90	1.00	0.01	26.97	150.55	2.00	0.00	1.00	0.00
27.05	149.58	2.00	0.00	1.00	0.00	27.10	145.93	2.00	0.00	1.00	0.00
27.19	142.22	2.00	0.00	1.00	0.00	27.23	140.91	2.00	0.00	1.00	0.00
27.32	143.55	2.00	0.00	1.00	0.00	27.37	143.93	2.00	0.00	1.00	0.00
27.46	141.68	2.00	0.00	1.00	0.00	27.50	127.86	2.00	0.00	1.00	0.00
27.59	114.81	2.00	0.00	1.00	0.00	27.64	106.77	2.00	0.00	1.00	0.00
27.73	112.24	2.00	0.00	1.00	0.00	27.77	122.54	2.00	0.00	1.00	0.00
27.84	129.86	2.00	0.00	1.00	0.00	27.90	130.95	2.00	0.00	1.00	0.00
27.97	124.25	2.00	0.00	1.00	0.00	28.03	119.85	0.58	2.01	1.00	0.02
28.14	119.53	0.58	2.02	1.00	0.02	28.17	121.63	0.60	1.99	1.00	0.01
28.22	122.74	0.61	1.98	1.00	0.01	28.30	126.16	2.00	0.00	1.00	0.00
28.37	130.54	2.00	0.00	1.00	0.00	28.43	132.55	2.00	0.00	1.00	0.00
28.48	129.13	2.00	0.00	1.00	0.00	28.55	113.89	2.00	0.00	1.00	0.00
28.61	98.91	2.00	0.00	1.00	0.00	28.70	89.43	2.00	0.00	1.00	0.00
28.75	94.62	2.00	0.00	1.00	0.00	28.82	97.97	2.00	0.00	1.00	0.00
28.88	99.65	2.00	0.00	1.00	0.00	28.95	98.96	2.00	0.00	1.00	0.00
29.04	97.77	2.00	0.00	1.00	0.00	29.09	96.73	2.00	0.00	1.00	0.00
29.15	94.69	2.00	0.00	1.00	0.00	29.24	93.09	2.00	0.00	1.00	0.00
29.28	90.84	2.00	0.00	1.00	0.00	29.37	90.06	2.00	0.00	1.00	0.00
29.41	88.48	2.00	0.00	1.00	0.00	29.50	87.29	2.00	0.00	1.00	0.00
29.54	85.93	2.00	0.00	1.00	0.00	29.60	85.55	2.00	0.00	1.00	0.00
29.66	86.07	2.00	0.00	1.00	0.00	29.73	86.85	2.00	0.00	1.00	0.00
29.82	87.26	2.00	0.00	1.00	0.00	29.86	87.51	2.00	0.00	1.00	0.00
29.93	87.39	2.00	0.00	1.00	0.00	29.99	88.96	2.00	0.00	1.00	0.00
30.09	90.80	2.00	0.00	1.00	0.00	30.13	91.71	2.00	0.00	1.00	0.00
30.19	86.39	2.00	0.00	1.00	0.00	30.26	82.60	2.00	0.00	1.00	0.00
30.35	81.65	2.00	0.00	1.00	0.00	30.40	85.89	2.00	0.00	1.00	0.00
30.46	88.49	2.00	0.00	1.00	0.00	30.52	93.46	2.00	0.00	1.00	0.00
30.61	96.68	2.00	0.00	1.00	0.00	30.66	94.57	2.00	0.00	1.00	0.00
30.75	85.86	2.00	0.00	1.00	0.00	30.80	78.38	2.00	0.00	1.00	0.00
30.84	75.16	2.00	0.00	1.00	0.00	30.93	75.28	2.00	0.00	1.00	0.00
30.97	76.82	2.00	0.00	1.00	0.00	31.06	76.65	2.00	0.00	1.00	0.00
31.10	78.99	2.00	0.00	1.00	0.00	31.20	77.47	2.00	0.00	1.00	0.00
31.29	80.41	2.00	0.00	1.00	0.00	31.32	86.30	2.00	0.00	1.00	0.00
31.37	87.22	0.33	2.61	1.00	0.02	31.46	91.51	0.35	2.51	1.00	0.03
31.50	99.68	0.40	2.34	1.00	0.01	31.59	109.43	0.47	2.17	1.00	0.02
31.65	114.51	0.51	2.09	1.00	0.01	31.73	119.71	0.56	2.02	1.00	0.02
31.77	146.34	0.86	0.89	1.00	0.00	31.83	160.76	1.08	0.40	1.00	0.00
31.89	148.57	0.89	0.87	1.00	0.01	31.99	136.10	0.73	1.59	1.00	0.02
32.04	145.73	0.85	0.90	1.00	0.00	32.12	157.12	1.02	0.58	1.00	0.01
32.17	171.89	1.28	0.20	1.00	0.00	32.22	176.10	1.36	0.00	1.00	0.00
32.31	177.85	1.40	0.00	1.00	0.00	32.36	172.57	1.29	0.20	1.00	0.00
32.44	174.72	1.33	0.19	1.00	0.00	32.49	179.24	1.42	0.00	1.00	0.00
32.58	187.03	1.59	0.00	1.00	0.00	32.61	196.73	1.82	0.00	1.00	0.00
32.71	205.05	2.00	0.00	1.00	0.00	32.75	215.94	2.00	0.00	1.00	0.00
32.82	226.50	2.00	0.00	1.00	0.00	32.88	237.34	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
32.95	244.99	2.00	0.00	1.00	0.00	33.02	248.82	2.00	0.00	1.00	0.00
33.09	247.38	2.00	0.00	1.00	0.00	33.17	242.50	2.00	0.00	1.00	0.00
33.21	234.33	2.00	0.00	1.00	0.00	33.29	227.28	2.00	0.00	1.00	0.00
33.37	222.18	2.00	0.00	1.00	0.00	33.42	220.47	2.00	0.00	1.00	0.00
33.47	217.57	2.00	0.00	1.00	0.00	33.55	220.44	2.00	0.00	1.00	0.00
33.60	225.54	2.00	0.00	1.00	0.00	33.67	229.79	2.00	0.00	1.00	0.00
33.73	229.02	2.00	0.00	1.00	0.00	33.80	223.24	2.00	0.00	1.00	0.00
33.86	191.91	1.69	0.00	1.00	0.00	33.95	158.94	1.04	0.57	1.00	0.01
34.02	127.58	0.63	1.91	1.00	0.01	34.09	131.93	0.67	1.66	1.00	0.01
34.13	136.38	0.72	1.58	1.00	0.01	34.21	142.66	2.00	0.00	1.00	0.00
34.26	143.26	2.00	0.00	1.00	0.00	34.33	142.99	2.00	0.00	1.00	0.00
34.40	138.68	2.00	0.00	1.00	0.00	34.48	136.00	2.00	0.00	1.00	0.00
34.53	132.76	2.00	0.00	1.00	0.00	34.62	126.86	2.00	0.00	1.00	0.00
34.66	125.45	2.00	0.00	1.00	0.00	34.75	126.32	2.00	0.00	1.00	0.00
34.80	132.70	2.00	0.00	1.00	0.00	34.84	139.94	2.00	0.00	1.00	0.00
34.93	144.69	2.00	0.00	1.00	0.00	35.02	148.44	0.87	0.87	1.00	0.01
35.07	149.89	0.89	0.86	1.00	0.01	35.11	153.03	0.94	0.84	1.00	0.00
35.18	153.62	0.95	0.83	1.00	0.01	35.24	157.49	1.01	0.58	1.00	0.00
35.33	160.39	1.05	0.41	1.00	0.00	35.38	164.23	1.12	0.40	1.00	0.00
35.44	161.92	1.08	0.40	1.00	0.00	35.50	153.55	0.95	0.83	1.00	0.01
35.60	145.36	0.83	1.18	1.00	0.01	35.64	140.41	0.77	1.24	1.00	0.01
35.71	141.20	0.78	1.23	1.00	0.01	35.78	153.15	0.94	0.83	1.00	0.01
35.84	170.39	2.00	0.00	1.00	0.00	35.91	183.90	2.00	0.00	1.00	0.00
35.96	183.92	1.49	0.00	1.00	0.00	36.04	181.58	1.44	0.00	1.00	0.00
36.10	183.23	1.48	0.00	1.00	0.00	36.18	189.61	1.62	0.00	1.00	0.00
36.22	197.30	1.80	0.00	1.00	0.00	36.31	205.22	2.00	0.00	1.00	0.00
36.37	212.25	2.00	0.00	1.00	0.00	36.44	217.66	2.00	0.00	1.00	0.00
36.49	219.76	2.00	0.00	1.00	0.00	36.55	218.18	2.00	0.00	1.00	0.00
36.62	212.60	2.00	0.00	1.00	0.00	36.69	204.92	2.00	0.00	1.00	0.00
36.75	199.93	2.00	0.00	1.00	0.00	36.82	199.42	2.00	0.00	1.00	0.00
36.88	196.57	2.00	0.00	1.00	0.00	36.95	192.66	2.00	0.00	1.00	0.00
37.02	192.22	2.00	0.00	1.00	0.00	37.11	198.75	2.00	0.00	1.00	0.00
37.15	209.45	2.00	0.00	1.00	0.00	37.21	215.62	2.00	0.00	1.00	0.00
37.28	219.04	2.00	0.00	1.00	0.00	37.35	219.66	2.00	0.00	1.00	0.00
37.41	218.74	2.00	0.00	1.00	0.00	37.49	214.98	2.00	0.00	1.00	0.00
37.55	209.94	2.00	0.00	1.00	0.00	37.60	206.81	2.00	0.00	1.00	0.00
37.68	206.77	2.00	0.00	1.00	0.00	37.77	203.59	2.00	0.00	1.00	0.00
37.86	199.16	2.00	0.00	1.00	0.00	37.87	184.99	2.00	0.00	1.00	0.00
37.95	174.13	2.00	0.00	1.00	0.00	38.01	164.29	2.00	0.00	1.00	0.00
38.07	163.51	2.00	0.00	1.00	0.00	38.13	165.90	2.00	0.00	1.00	0.00
38.22	168.23	2.00	0.00	1.00	0.00	38.26	170.96	2.00	0.00	1.00	0.00
38.36	169.06	2.00	0.00	1.00	0.00	38.39	167.53	2.00	0.00	1.00	0.00
38.48	166.75	2.00	0.00	1.00	0.00	38.53	167.47	2.00	0.00	1.00	0.00
38.58	169.29	2.00	0.00	1.00	0.00	38.66	170.69	2.00	0.00	1.00	0.00
38.72	172.60	2.00	0.00	1.00	0.00	38.80	175.16	2.00	0.00	1.00	0.00
38.86	178.68	2.00	0.00	1.00	0.00	38.93	182.32	2.00	0.00	1.00	0.00
39.01	186.08	2.00	0.00	1.00	0.00	39.06	190.54	2.00	0.00	1.00	0.00
39.11	197.57	2.00	0.00	1.00	0.00	39.19	204.83	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
39.25	212.11	2.00	0.00	1.00	0.00	39.31	216.77	2.00	0.00	1.00	0.00
39.38	220.07	2.00	0.00	1.00	0.00	39.46	222.37	2.00	0.00	1.00	0.00
39.52	222.84	2.00	0.00	1.00	0.00	39.60	223.18	2.00	0.00	1.00	0.00
39.63	220.88	2.00	0.00	1.00	0.00	39.70	218.00	2.00	0.00	1.00	0.00
39.78	212.50	2.00	0.00	1.00	0.00	39.84	207.53	2.00	0.00	1.00	0.00
39.91	193.00	2.00	0.00	1.00	0.00	40.00	176.48	2.00	0.00	1.00	0.00
40.03	162.50	2.00	0.00	1.00	0.00	40.13	162.31	2.00	0.00	1.00	0.00
40.18	167.18	2.00	0.00	1.00	0.00	40.27	170.32	2.00	0.00	1.00	0.00
40.30	173.36	2.00	0.00	1.00	0.00	40.40	175.46	2.00	0.00	1.00	0.00
40.42	179.70	2.00	0.00	1.00	0.00	40.49	184.00	2.00	0.00	1.00	0.00
40.58	189.42	2.00	0.00	1.00	0.00	40.62	194.65	2.00	0.00	1.00	0.00
40.71	198.20	2.00	0.00	1.00	0.00	40.76	196.58	2.00	0.00	1.00	0.00
40.84	196.87	2.00	0.00	1.00	0.00	40.88	197.13	2.00	0.00	1.00	0.00
40.96	195.94	2.00	0.00	1.00	0.00	41.02	192.33	2.00	0.00	1.00	0.00
41.11	188.05	2.00	0.00	1.00	0.00	41.15	185.97	2.00	0.00	1.00	0.00
41.24	188.02	2.00	0.00	1.00	0.00	41.29	193.78	2.00	0.00	1.00	0.00
41.37	194.38	2.00	0.00	1.00	0.00	41.42	192.99	2.00	0.00	1.00	0.00
41.51	192.71	2.00	0.00	1.00	0.00	41.55	196.16	2.00	0.00	1.00	0.00
41.60	201.28	2.00	0.00	1.00	0.00	41.67	204.37	2.00	0.00	1.00	0.00
41.74	194.57	2.00	0.00	1.00	0.00	41.80	186.37	2.00	0.00	1.00	0.00
41.87	179.14	2.00	0.00	1.00	0.00	41.95	182.76	2.00	0.00	1.00	0.00
42.00	184.78	2.00	0.00	1.00	0.00	42.08	180.51	2.00	0.00	1.00	0.00
42.13	176.35	1.33	0.19	1.00	0.00	42.20	171.76	1.24	0.28	1.00	0.00
42.26	173.58	1.28	0.20	1.00	0.00	42.33	176.16	1.33	0.19	1.00	0.00
42.40	180.59	1.42	0.00	1.00	0.00	42.47	184.93	1.51	0.00	1.00	0.00
42.52	188.78	1.59	0.00	1.00	0.00	42.61	187.27	1.56	0.00	1.00	0.00
42.66	167.72	1.17	0.28	1.00	0.00	42.75	153.50	0.94	0.83	1.00	0.01
42.80	159.01	1.03	0.57	1.00	0.00	42.89	179.25	1.39	0.00	1.00	0.00
42.92	202.90	2.00	0.00	1.00	0.00	42.98	221.20	2.00	0.00	1.00	0.00
43.07	230.88	2.00	0.00	1.00	0.00	43.11	222.69	2.00	0.00	1.00	0.00
43.18	199.65	1.86	0.00	1.00	0.00	43.24	179.11	1.39	0.00	1.00	0.00
43.32	173.73	1.29	0.20	1.00	0.00	43.42	174.02	1.29	0.19	1.00	0.00
43.45	184.88	1.51	0.00	1.00	0.00	43.52	204.67	2.00	0.00	1.00	0.00
43.58	230.34	2.00	0.00	1.00	0.00	43.67	239.38	2.00	0.00	1.00	0.00
43.74	243.31	2.00	0.00	1.00	0.00	43.77	234.87	2.00	0.00	1.00	0.00
43.86	224.92	2.00	0.00	1.00	0.00	43.91	214.26	2.00	0.00	1.00	0.00
43.96	208.37	2.00	0.00	1.00	0.00	44.04	212.68	2.00	0.00	1.00	0.00
44.10	228.50	2.00	0.00	1.00	0.00	44.17	242.07	2.00	0.00	1.00	0.00
44.23	248.27	2.00	0.00	1.00	0.00	44.30	245.48	2.00	0.00	1.00	0.00
44.40	237.51	2.00	0.00	1.00	0.00	44.44	222.43	2.00	0.00	1.00	0.00
44.50	201.15	2.00	0.00	1.00	0.00	44.57	180.51	2.00	0.00	1.00	0.00
44.62	174.34	1.30	0.19	1.00	0.00	44.71	183.87	1.50	0.00	1.00	0.00
44.79	189.63	1.63	0.00	1.00	0.00	44.84	184.31	1.51	0.00	1.00	0.00
44.91	177.03	1.36	0.00	1.00	0.00	44.96	183.00	1.48	0.00	1.00	0.00
45.04	198.37	1.84	0.00	1.00	0.00	45.08	215.31	2.00	0.00	1.00	0.00
45.15	220.52	2.00	0.00	1.00	0.00	45.22	218.64	2.00	0.00	1.00	0.00
45.28	219.50	2.00	0.00	1.00	0.00	45.35	228.05	2.00	0.00	1.00	0.00
45.41	237.69	2.00	0.00	1.00	0.00	45.49	243.91	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
45.54	243.55	2.00	0.00	1.00	0.00	45.61	237.78	2.00	0.00	1.00	0.00
45.71	230.13	2.00	0.00	1.00	0.00	45.76	220.33	2.00	0.00	1.00	0.00
45.80	210.42	2.00	0.00	1.00	0.00	45.87	199.59	1.87	0.00	1.00	0.00
45.96	191.48	1.68	0.00	1.00	0.00	46.01	179.98	1.42	0.00	1.00	0.00
46.11	172.09	1.27	0.20	1.00	0.00	46.13	165.77	1.15	0.29	1.00	0.00
46.20	164.91	1.14	0.40	1.00	0.00	46.29	164.60	1.13	0.40	1.00	0.00
46.33	164.90	1.14	0.40	1.00	0.00	46.39	164.53	1.13	0.40	1.00	0.00
46.47	164.85	1.14	0.40	1.00	0.00	46.55	165.01	1.14	0.40	1.00	0.00
46.59	165.19	1.15	0.40	1.00	0.00	46.68	163.11	1.11	0.40	1.00	0.00
46.73	157.71	1.02	0.58	1.00	0.00	46.79	146.60	0.86	0.89	1.00	0.01
46.86	143.44	0.81	1.20	1.00	0.01	46.94	143.33	0.81	1.20	1.00	0.01
47.00	143.32	0.81	1.20	1.00	0.01	47.08	143.35	0.81	1.20	1.00	0.01
47.13	143.55	0.82	1.20	1.00	0.01	47.20	146.23	0.85	0.89	1.00	0.01
47.25	152.54	0.94	0.84	1.00	0.00	47.31	158.44	1.04	0.58	1.00	0.00
47.40	162.60	1.11	0.40	1.00	0.00	47.45	165.75	1.16	0.29	1.00	0.00
47.53	167.17	1.19	0.28	1.00	0.00	47.58	168.27	1.21	0.28	1.00	0.00
47.66	168.68	1.21	0.28	1.00	0.00	47.72	168.74	1.22	0.28	1.00	0.00
47.80	168.56	1.21	0.28	1.00	0.00	47.85	169.05	1.22	0.28	1.00	0.00
47.90	170.99	1.26	0.20	1.00	0.00	47.98	173.54	1.31	0.20	1.00	0.00
48.05	175.33	1.34	0.19	1.00	0.00	48.11	175.08	1.34	0.19	1.00	0.00
48.18	167.30	1.19	0.28	1.00	0.00	48.25	159.88	1.07	0.41	1.00	0.00
48.33	162.18	1.10	0.40	1.00	0.00	48.38	163.15	1.12	0.40	1.00	0.00
48.43	164.26	1.14	0.40	1.00	0.00	48.49	166.14	1.17	0.28	1.00	0.00
48.56	166.42	1.18	0.28	1.00	0.00	48.63	167.63	1.20	0.28	1.00	0.00
48.70	170.28	1.25	0.20	1.00	0.00	48.78	173.40	1.31	0.20	1.00	0.00
48.82	176.14	1.37	0.00	1.00	0.00	48.89	177.09	1.39	0.00	1.00	0.00
48.97	176.93	1.38	0.00	1.00	0.00	49.04	176.13	1.37	0.00	1.00	0.00
49.09	175.87	1.36	0.00	1.00	0.00	49.17	175.77	1.36	0.00	1.00	0.00
49.22	175.56	1.36	0.00	1.00	0.00	49.28	175.11	1.35	0.19	1.00	0.00
49.35	172.99	1.31	0.20	1.00	0.00	49.43	169.78	1.25	0.28	1.00	0.00
49.49	166.68	1.19	0.28	1.00	0.00	49.55	163.96	1.14	0.40	1.00	0.00
49.62	162.92	1.13	0.40	1.00	0.00	49.70	163.19	1.13	0.40	1.00	0.00
49.75	166.28	1.19	0.28	1.00	0.00	49.80	167.71	1.21	0.28	1.00	0.00
49.89	166.43	1.19	0.28	1.00	0.00	49.95	152.56	0.96	0.60	1.00	0.00
50.01	156.20	1.02	0.58	1.00	0.00	50.08	164.66	1.16	0.29	1.00	0.00
50.16	170.83	1.27	0.20	1.00	0.00	50.20	175.52	1.37	0.00	1.00	0.00
50.27	180.16	1.46	0.00	1.00	0.00	50.34	183.81	1.54	0.00	1.00	0.00
50.41	187.32	1.62	0.00	1.00	0.00	50.47	189.53	1.67	0.00	1.00	0.00
50.52	191.20	1.71	0.00	1.00	0.00	50.60	191.36	1.72	0.00	1.00	0.00
50.70	190.48	1.70	0.00	1.00	0.00	50.72	188.18	1.64	0.00	1.00	0.00
50.80	185.46	1.58	0.00	1.00	0.00	50.87	182.58	1.52	0.00	1.00	0.00
50.92	180.09	1.47	0.00	1.00	0.00	51.00	178.36	1.43	0.00	1.00	0.00
51.05	176.76	1.40	0.00	1.00	0.00	51.14	175.61	1.38	0.00	1.00	0.00
51.18	173.75	1.34	0.20	1.00	0.00	51.27	171.66	1.30	0.20	1.00	0.00
51.32	166.57	1.20	0.28	1.00	0.00	51.41	161.90	1.12	0.40	1.00	0.00
51.45	156.91	1.04	0.58	1.00	0.00	51.54	154.83	1.00	0.59	1.00	0.01
51.58	152.02	0.96	0.60	1.00	0.00	51.67	151.06	0.95	0.85	1.00	0.01
51.72	150.90	0.95	0.85	1.00	0.00	51.78	151.31	0.95	0.60	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
51.84	152.00	0.96	0.60	1.00	0.00	51.91	153.27	0.98	0.59	1.00	0.00
51.98	156.09	1.03	0.58	1.00	0.00	52.07	159.18	1.08	0.41	1.00	0.00
52.10	162.61	1.14	0.40	1.00	0.00	52.17	164.46	1.17	0.29	1.00	0.00
52.25	164.71	1.18	0.29	1.00	0.00	52.30	162.57	1.14	0.40	1.00	0.00
52.38	158.76	1.07	0.41	1.00	0.00	52.46	153.72	0.99	0.59	1.00	0.01
52.51	147.09	0.89	0.89	1.00	0.01	52.59	144.17	0.85	0.91	1.00	0.01
52.63	147.22	0.90	0.88	1.00	0.00	52.69	151.32	0.96	0.60	1.00	0.00
52.76	156.91	1.05	0.58	1.00	0.00	52.82	166.24	1.21	0.28	1.00	0.00
52.91	176.68	1.41	0.00	1.00	0.00	53.00	185.59	1.61	0.00	1.00	0.00
53.02	190.92	1.74	0.00	1.00	0.00	53.09	192.51	1.78	0.00	1.00	0.00
53.18	194.37	1.82	0.00	1.00	0.00	53.23	196.49	1.88	0.00	1.00	0.00
53.30	198.46	1.93	0.00	1.00	0.00	53.36	201.38	2.00	0.00	1.00	0.00
53.43	203.24	2.00	0.00	1.00	0.00	53.48	203.67	2.00	0.00	1.00	0.00
53.56	197.66	1.91	0.00	1.00	0.00	53.62	191.64	1.76	0.00	1.00	0.00
53.68	186.00	1.63	0.00	1.00	0.00	53.76	184.89	1.60	0.00	1.00	0.00
53.81	183.64	1.57	0.00	1.00	0.00	53.88	181.99	1.54	0.00	1.00	0.00
53.95	180.18	1.50	0.00	1.00	0.00	54.02	177.95	1.45	0.00	1.00	0.00
54.10	175.44	1.40	0.00	1.00	0.00	54.16	172.61	1.34	0.20	1.00	0.00
54.20	169.30	1.28	0.20	1.00	0.00	54.29	165.57	1.21	0.29	1.00	0.00
54.34	161.17	1.13	0.40	1.00	0.00	54.42	156.38	1.05	0.58	1.00	0.01
54.47	167.16	1.24	0.28	1.00	0.00	54.53	172.77	1.35	0.20	1.00	0.00
54.60	173.75	1.37	0.00	1.00	0.00	54.67	172.99	1.36	0.00	1.00	0.00
54.73	172.18	1.34	0.20	1.00	0.00	54.80	172.46	1.35	0.20	1.00	0.00
54.87	173.10	1.36	0.00	1.00	0.00	54.92	174.59	1.39	0.00	1.00	0.00
55.05	175.73	1.42	0.00	1.00	0.00	55.06	178.52	1.47	0.00	1.00	0.00
55.14	182.06	1.55	0.00	1.00	0.00	55.19	187.16	1.67	0.00	1.00	0.00
55.26	191.74	1.78	0.00	1.00	0.00	55.32	195.46	1.88	0.00	1.00	0.00
55.40	187.48	1.68	0.00	1.00	0.00	55.49	174.36	1.39	0.00	1.00	0.00
55.51	159.77	1.12	0.41	1.00	0.00	55.58	153.65	1.01	0.59	1.00	0.00
55.66	156.67	1.06	0.41	1.00	0.00	55.71	156.86	1.07	0.41	1.00	0.00
55.78	154.83	1.03	0.59	1.00	0.00	55.84	152.85	1.00	0.60	1.00	0.00
55.92	153.83	1.02	0.59	1.00	0.01	55.97	154.62	1.03	0.59	1.00	0.00
56.07	154.82	1.04	0.59	1.00	0.01	56.11	154.30	1.03	0.59	1.00	0.00
56.20	152.21	1.00	0.60	1.00	0.01	56.24	145.93	0.90	0.90	1.00	0.00
56.33	141.96	0.85	1.22	1.00	0.01	56.37	145.76	0.90	0.90	1.00	0.00
56.46	148.84	0.95	0.87	1.00	0.01	56.51	151.84	0.99	0.60	1.00	0.00
56.59	152.89	1.01	0.60	1.00	0.01	56.64	153.21	1.01	0.59	1.00	0.00
56.69	152.47	1.00	0.60	1.00	0.00	56.78	151.65	0.99	0.60	1.00	0.01
56.84	150.62	0.98	0.60	1.00	0.00	56.91	151.55	0.99	0.60	1.00	0.01
56.96	155.88	1.06	0.41	1.00	0.00	57.04	158.18	1.10	0.41	1.00	0.00
57.09	164.88	1.22	0.29	1.00	0.00	57.18	171.12	1.34	0.20	1.00	0.00
57.22	175.24	1.43	0.00	1.00	0.00	57.31	177.27	1.47	0.00	1.00	0.00
57.36	177.16	1.47	0.00	1.00	0.00	57.42	175.67	1.44	0.00	1.00	0.00
57.49	170.89	1.34	0.20	1.00	0.00	57.57	167.50	1.27	0.20	1.00	0.00
57.62	165.39	1.23	0.29	1.00	0.00	57.70	167.80	1.28	0.20	1.00	0.00
57.75	167.01	1.27	0.20	1.00	0.00	57.84	162.29	1.18	0.29	1.00	0.00
57.89	150.92	0.99	0.60	1.00	0.00	57.94	155.11	1.05	0.41	1.00	0.00
58.01	146.62	0.92	0.89	1.00	0.01	58.07	132.82	0.74	1.64	1.00	0.01

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
58.16	129.01	0.69	1.71	1.00	0.02	58.22	139.47	0.82	1.25	1.00	0.01
58.28	153.22	1.03	0.59	1.00	0.00	58.36	163.77	2.00	0.00	1.00	0.00
58.42	170.51	2.00	0.00	1.00	0.00	58.51	173.13	2.00	0.00	1.00	0.00
58.54	176.07	2.00	0.00	1.00	0.00	58.63	178.66	2.00	0.00	1.00	0.00
58.67	180.71	2.00	0.00	1.00	0.00	58.73	182.54	2.00	0.00	1.00	0.00
58.82	186.11	2.00	0.00	1.00	0.00	58.86	190.71	2.00	0.00	1.00	0.00
58.93	194.19	2.00	0.00	1.00	0.00	58.99	196.80	2.00	0.00	1.00	0.00
59.06	197.95	2.00	0.00	1.00	0.00	59.12	194.81	2.00	0.00	1.00	0.00
59.23	192.62	2.00	0.00	1.00	0.00	59.27	191.87	2.00	0.00	1.00	0.00
59.35	194.32	2.00	0.00	1.00	0.00	59.39	192.66	2.00	0.00	1.00	0.00
59.46	183.02	1.62	0.00	1.00	0.00	59.53	168.20	1.30	0.20	1.00	0.00
59.60	154.58	1.06	0.42	1.00	0.00	59.65	143.98	0.89	0.91	1.00	0.01
59.75	140.67	0.85	1.23	1.00	0.02	59.78	141.40	0.86	0.94	1.00	0.00
59.85	144.51	0.90	0.91	1.00	0.01	59.93	148.57	0.96	0.61	1.00	0.01
59.98	151.37	1.01	0.60	1.00	0.00	60.06	152.70	2.00	0.00	1.00	0.00
60.11	152.75	2.00	0.00	1.00	0.00	60.17	153.07	2.00	0.00	1.00	0.00
60.24	154.23	2.00	0.00	1.00	0.00	60.32	156.31	2.00	0.00	1.00	0.00
60.38	159.33	2.00	0.00	1.00	0.00	60.43	162.68	2.00	0.00	1.00	0.00
60.51	165.36	2.00	0.00	1.00	0.00	60.59	167.37	2.00	0.00	1.00	0.00
60.64	169.31	2.00	0.00	1.00	0.00	60.71	172.63	2.00	0.00	1.00	0.00
60.78	176.99	2.00	0.00	1.00	0.00	60.83	180.90	2.00	0.00	1.00	0.00
60.91	183.57	2.00	0.00	1.00	0.00	60.98	185.88	2.00	0.00	1.00	0.00
61.03	187.55	2.00	0.00	1.00	0.00	61.10	189.38	2.00	0.00	1.00	0.00
61.16	189.82	2.00	0.00	1.00	0.00	61.25	187.55	2.00	0.00	1.00	0.00
61.31	182.43	2.00	0.00	1.00	0.00	61.36	175.02	2.00	0.00	1.00	0.00
61.43	167.69	2.00	0.00	1.00	0.00	61.49	163.85	2.00	0.00	1.00	0.00
61.55	160.29	2.00	0.00	1.00	0.00	61.67	158.54	2.00	0.00	1.00	0.00
61.69	154.27	2.00	0.00	1.00	0.00	61.75	151.01	2.00	0.00	1.00	0.00
61.82	144.01	2.00	0.00	1.00	0.00	61.89	146.86	2.00	0.00	1.00	0.00
61.95	161.54	2.00	0.00	1.00	0.00	62.02	179.27	2.00	0.00	1.00	0.00
62.11	195.75	2.00	0.00	1.00	0.00	62.15	208.74	2.00	0.00	1.00	0.00
62.22	215.35	2.00	0.00	1.00	0.00	62.29	218.48	2.00	0.00	1.00	0.00
62.34	216.83	2.00	0.00	1.00	0.00	62.40	210.40	2.00	0.00	1.00	0.00
62.51	201.86	2.00	0.00	1.00	0.00	62.56	191.63	2.00	0.00	1.00	0.00
62.62	184.95	2.00	0.00	1.00	0.00	62.69	180.64	2.00	0.00	1.00	0.00
62.73	177.46	2.00	0.00	1.00	0.00	62.82	174.68	2.00	0.00	1.00	0.00
62.87	168.62	2.00	0.00	1.00	0.00	62.96	162.90	2.00	0.00	1.00	0.00
63.00	157.98	2.00	0.00	1.00	0.00	63.09	156.60	2.00	0.00	1.00	0.00
63.13	146.39	2.00	0.00	1.00	0.00	63.19	137.15	2.00	0.00	1.00	0.00
63.26	111.49	2.00	0.00	1.00	0.00	63.33	87.95	2.00	0.00	1.00	0.00
63.40	87.10	2.00	0.00	1.00	0.00	63.47	93.74	2.00	0.00	1.00	0.00
63.52	105.89	2.00	0.00	1.00	0.00	63.59	118.81	2.00	0.00	1.00	0.00
63.66	124.21	2.00	0.00	1.00	0.00	63.72	127.09	2.00	0.00	1.00	0.00
63.80	126.30	2.00	0.00	1.00	0.00	63.89	126.70	2.00	0.00	1.00	0.00
63.92	125.45	2.00	0.00	1.00	0.00	64.00	124.66	2.00	0.00	1.00	0.00
64.06	121.33	2.00	0.00	1.00	0.00	64.15	117.34	2.00	0.00	1.00	0.00
64.19	115.25	2.00	0.00	1.00	0.00	64.24	116.74	2.00	0.00	1.00	0.00
64.34	117.57	2.00	0.00	1.00	0.00	64.39	124.94	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
64.46	131.98	2.00	0.00	1.00	0.00	64.51	140.27	2.00	0.00	1.00	0.00
64.61	146.01	2.00	0.00	1.00	0.00	64.64	150.78	2.00	0.00	1.00	0.00
64.73	158.11	2.00	0.00	1.00	0.00	64.77	162.45	2.00	0.00	1.00	0.00
64.87	166.96	2.00	0.00	1.00	0.00	64.90	170.86	2.00	0.00	1.00	0.00
64.97	171.18	2.00	0.00	1.00	0.00	65.04	169.81	2.00	0.00	1.00	0.00
65.10	166.06	2.00	0.00	1.00	0.00	65.16	161.96	2.00	0.00	1.00	0.00
65.25	153.55	2.00	0.00	1.00	0.00	65.30	158.12	2.00	0.00	1.00	0.00
65.36	156.10	2.00	0.00	1.00	0.00	65.44	152.60	2.00	0.00	1.00	0.00
65.49	143.82	2.00	0.00	1.00	0.00	65.55	143.08	2.00	0.00	1.00	0.00
65.62	144.99	2.00	0.00	1.00	0.00	65.71	147.30	2.00	0.00	1.00	0.00
65.75	150.37	2.00	0.00	1.00	0.00	65.83	153.23	2.00	0.00	1.00	0.00
65.89	157.28	2.00	0.00	1.00	0.00	65.98	167.29	2.00	0.00	1.00	0.00
66.02	170.65	2.00	0.00	1.00	0.00	66.08	172.33	2.00	0.00	1.00	0.00
66.16	173.37	2.00	0.00	1.00	0.00	66.24	173.76	2.00	0.00	1.00	0.00
66.28	173.53	2.00	0.00	1.00	0.00	66.37	171.82	2.00	0.00	1.00	0.00
66.45	169.69	2.00	0.00	1.00	0.00	66.48	166.07	2.00	0.00	1.00	0.00
66.56	163.14	2.00	0.00	1.00	0.00	66.61	153.85	2.00	0.00	1.00	0.00
66.69	151.31	2.00	0.00	1.00	0.00	66.73	145.66	2.00	0.00	1.00	0.00
66.81	139.10	2.00	0.00	1.00	0.00	66.86	136.65	2.00	0.00	1.00	0.00
66.96	136.68	2.00	0.00	1.00	0.00	67.00	139.21	2.00	0.00	1.00	0.00
67.11	138.71	2.00	0.00	1.00	0.00	67.14	138.06	2.00	0.00	1.00	0.00
67.21	135.96	2.00	0.00	1.00	0.00	67.26	135.34	2.00	0.00	1.00	0.00
67.36	137.26	2.00	0.00	1.00	0.00	67.40	140.47	2.00	0.00	1.00	0.00
67.49	143.06	2.00	0.00	1.00	0.00	67.58	143.88	2.00	0.00	1.00	0.00
67.59	141.97	2.00	0.00	1.00	0.00	67.66	131.47	2.00	0.00	1.00	0.00
67.76	106.78	2.00	0.00	1.00	0.00	67.80	89.33	2.00	0.00	1.00	0.00
67.88	86.99	2.00	0.00	1.00	0.00	67.94	91.29	2.00	0.00	1.00	0.00
68.02	96.04	2.00	0.00	1.00	0.00	68.10	100.35	2.00	0.00	1.00	0.00
68.12	106.65	2.00	0.00	1.00	0.00	68.18	114.83	2.00	0.00	1.00	0.00
68.25	125.23	2.00	0.00	1.00	0.00	68.33	131.98	2.00	0.00	1.00	0.00
68.39	133.33	2.00	0.00	1.00	0.00	68.45	134.33	2.00	0.00	1.00	0.00
68.52	149.25	2.00	0.00	1.00	0.00	68.58	172.03	2.00	0.00	1.00	0.00
68.66	177.71	2.00	0.00	1.00	0.00	68.72	175.84	2.00	0.00	1.00	0.00
68.79	177.08	2.00	0.00	1.00	0.00	68.84	180.96	2.00	0.00	1.00	0.00
68.91	184.52	2.00	0.00	1.00	0.00	68.97	180.56	2.00	0.00	1.00	0.00
69.04	181.27	2.00	0.00	1.00	0.00	69.10	180.96	2.00	0.00	1.00	0.00
69.19	180.69	2.00	0.00	1.00	0.00	69.23	183.93	2.00	0.00	1.00	0.00
69.30	190.12	2.00	0.00	1.00	0.00	69.36	198.03	2.00	0.00	1.00	0.00
69.42	203.53	2.00	0.00	1.00	0.00	69.49	208.71	2.00	0.00	1.00	0.00
69.59	209.02	2.00	0.00	1.00	0.00	69.64	198.62	2.00	0.00	1.00	0.00
69.72	195.28	2.00	0.00	1.00	0.00	69.77	196.09	2.00	0.00	1.00	0.00
69.85	191.47	2.00	0.00	1.00	0.00	69.89	184.95	2.00	0.00	1.00	0.00
69.97	176.13	2.00	0.00	1.00	0.00	70.05	170.08	2.00	0.00	1.00	0.00
70.09	164.79	2.00	0.00	1.00	0.00	70.15	160.95	2.00	0.00	1.00	0.00
70.22	154.89	2.00	0.00	1.00	0.00	70.30	154.65	2.00	0.00	1.00	0.00
70.35	155.49	2.00	0.00	1.00	0.00	70.41	139.62	2.00	0.00	1.00	0.00
70.48	127.66	2.00	0.00	1.00	0.00	70.55	129.54	2.00	0.00	1.00	0.00
70.61	135.94	2.00	0.00	1.00	0.00	70.67	148.72	2.00	0.00	1.00	0.00



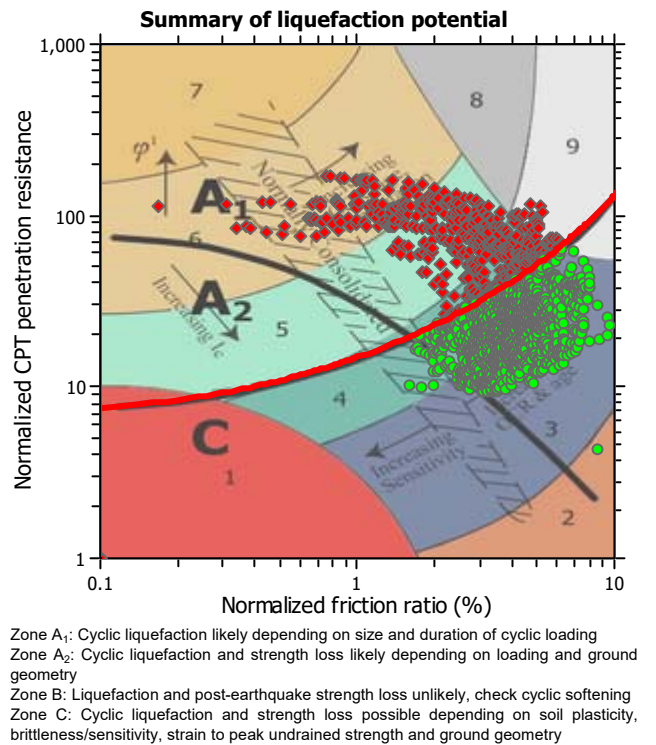
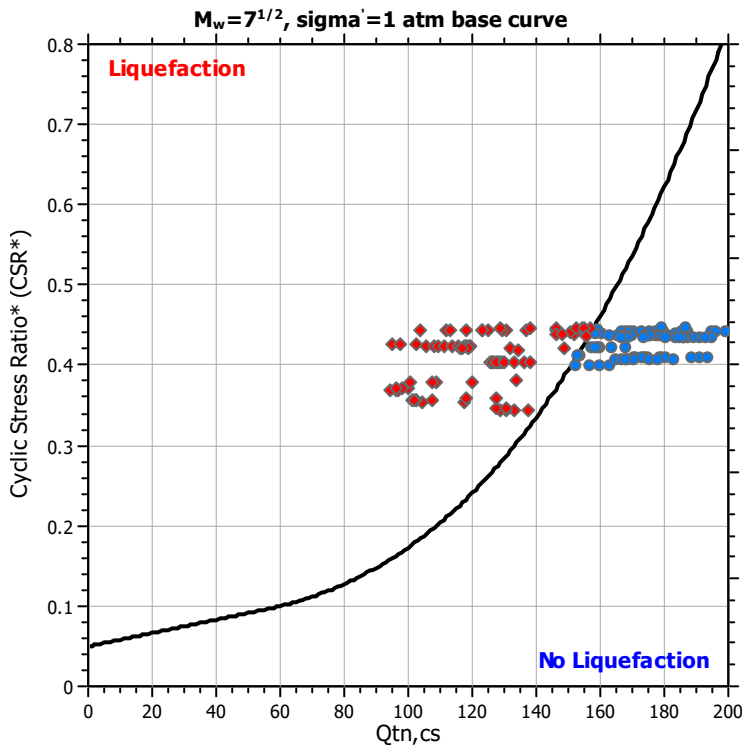
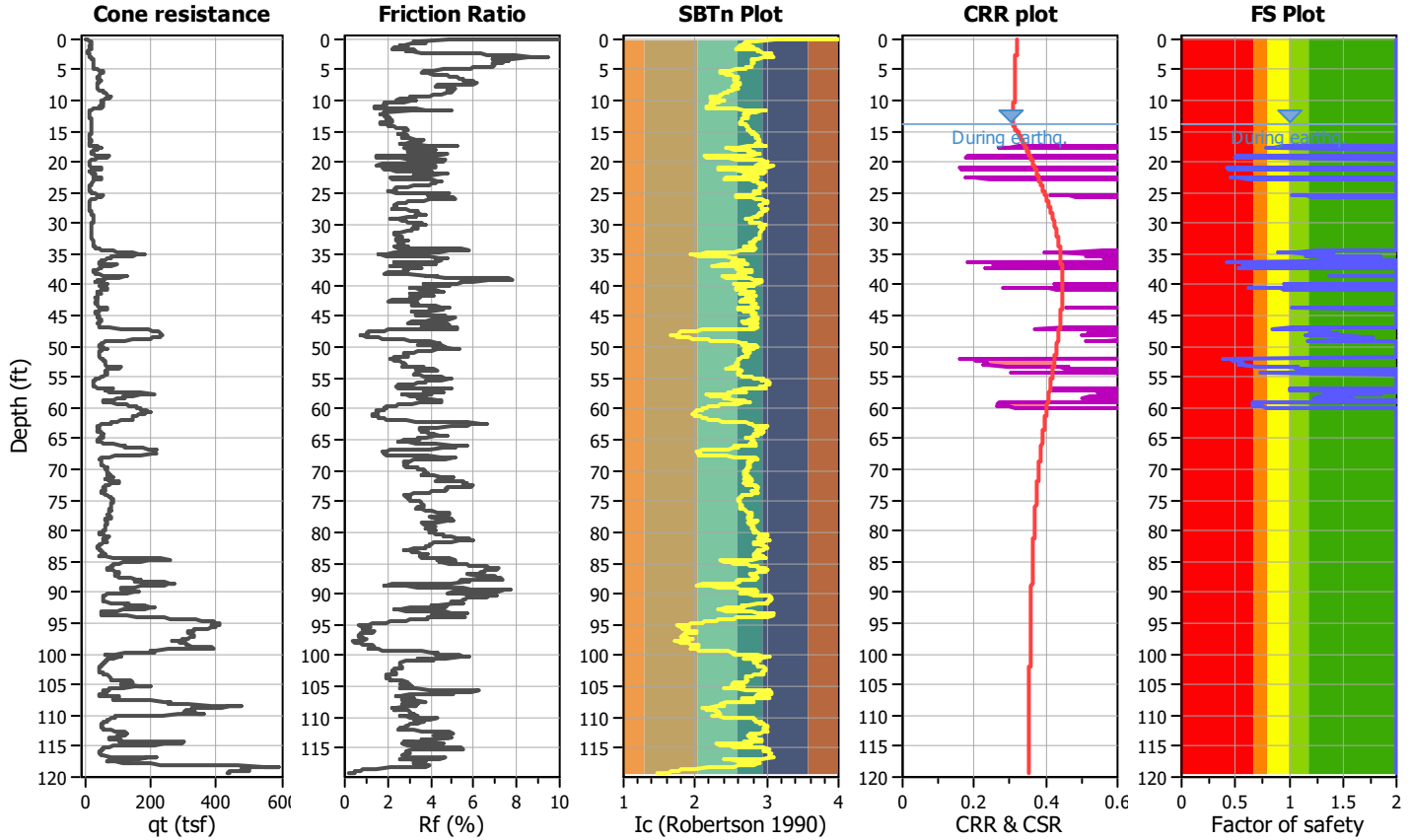
:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	$Q_{tn,cs}$	FS	$e_v$ (%)	DF	Settlement (in)	Depth (ft)	$Q_{tn,cs}$	FS	$e_v$ (%)	DF	Settlement (in)
70.76	163.67	2.00	0.00	1.00	0.00	70.80	172.06	2.00	0.00	1.00	0.00
70.88	163.67	2.00	0.00	1.00	0.00	70.94	149.63	2.00	0.00	1.00	0.00
71.01	138.14	2.00	0.00	1.00	0.00	71.07	143.17	2.00	0.00	1.00	0.00
71.13	149.88	2.00	0.00	1.00	0.00	71.20	153.08	2.00	0.00	1.00	0.00
71.27	143.35	2.00	0.00	1.00	0.00	71.35	133.54	2.00	0.00	1.00	0.00
71.42	126.28	2.00	0.00	1.00	0.00	71.47	121.50	2.00	0.00	1.00	0.00
71.54	118.06	2.00	0.00	1.00	0.00	71.60	115.04	2.00	0.00	1.00	0.00
71.66	113.65	2.00	0.00	1.00	0.00	71.73	114.17	2.00	0.00	1.00	0.00
71.80	114.85	2.00	0.00	1.00	0.00	71.88	115.49	2.00	0.00	1.00	0.00
71.92	113.84	2.00	0.00	1.00	0.00	71.99	111.85	2.00	0.00	1.00	0.00
72.06	110.61	2.00	0.00	1.00	0.00	72.11	118.57	2.00	0.00	1.00	0.00
72.21	131.52	2.00	0.00	1.00	0.00	72.25	146.62	2.00	0.00	1.00	0.00
72.33	151.51	2.00	0.00	1.00	0.00	72.38	151.13	2.00	0.00	1.00	0.00
72.45	152.18	2.00	0.00	1.00	0.00	72.52	158.95	2.00	0.00	1.00	0.00
72.61	166.05	2.00	0.00	1.00	0.00	72.65	164.98	2.00	0.00	1.00	0.00
72.70	154.26	2.00	0.00	1.00	0.00	72.78	141.49	2.00	0.00	1.00	0.00
72.85	130.28	2.00	0.00	1.00	0.00	72.92	126.30	2.00	0.00	1.00	0.00
73.01	124.96	2.00	0.00	1.00	0.00	73.05	125.99	2.00	0.00	1.00	0.00
73.10	126.43	2.00	0.00	1.00	0.00	73.18	125.65	2.00	0.00	1.00	0.00
73.25	124.21	2.00	0.00	1.00	0.00	73.32	122.87	2.00	0.00	1.00	0.00
73.36	121.24	2.00	0.00	1.00	0.00	73.45	120.65	2.00	0.00	1.00	0.00
73.50	121.74	2.00	0.00	1.00	0.00	73.56	128.06	2.00	0.00	1.00	0.00
73.65	135.46	2.00	0.00	1.00	0.00	73.69	144.45	2.00	0.00	1.00	0.00
73.78	149.82	2.00	0.00	1.00	0.00	73.82	153.80	2.00	0.00	1.00	0.00
73.92	154.54	2.00	0.00	1.00	0.00	73.96	153.97	2.00	0.00	1.00	0.00
74.04	152.26	2.00	0.00	1.00	0.00	74.09	149.02	2.00	0.00	1.00	0.00
74.16	145.25	2.00	0.00	1.00	0.00	74.21	140.66	2.00	0.00	1.00	0.00
74.31	137.39	2.00	0.00	1.00	0.00	74.35	134.15	2.00	0.00	1.00	0.00
74.45	131.56	2.00	0.00	1.00	0.00	74.49	127.88	2.00	0.00	1.00	0.00
74.58	126.54	2.00	0.00	1.00	0.00	74.63	126.48	2.00	0.00	1.00	0.00
74.70	128.42	2.00	0.00	1.00	0.00	74.75	129.72	2.00	0.00	1.00	0.00
74.83	102.36	2.00	0.00	1.00	0.00	74.87	70.20	2.00	0.00	1.00	0.00
74.93	-1.00	2.00	0.00	1.00	0.00	75.02	-1.00	2.00	0.00	1.00	0.00
75.08	-1.00	2.00	0.00	1.00	0.00	75.13	-1.00	2.00	0.00	1.00	0.00
75.21	-1.00	2.00	0.00	1.00	0.00						
<b>Total estimated settlement: 1.52</b>											

**Abbreviations**

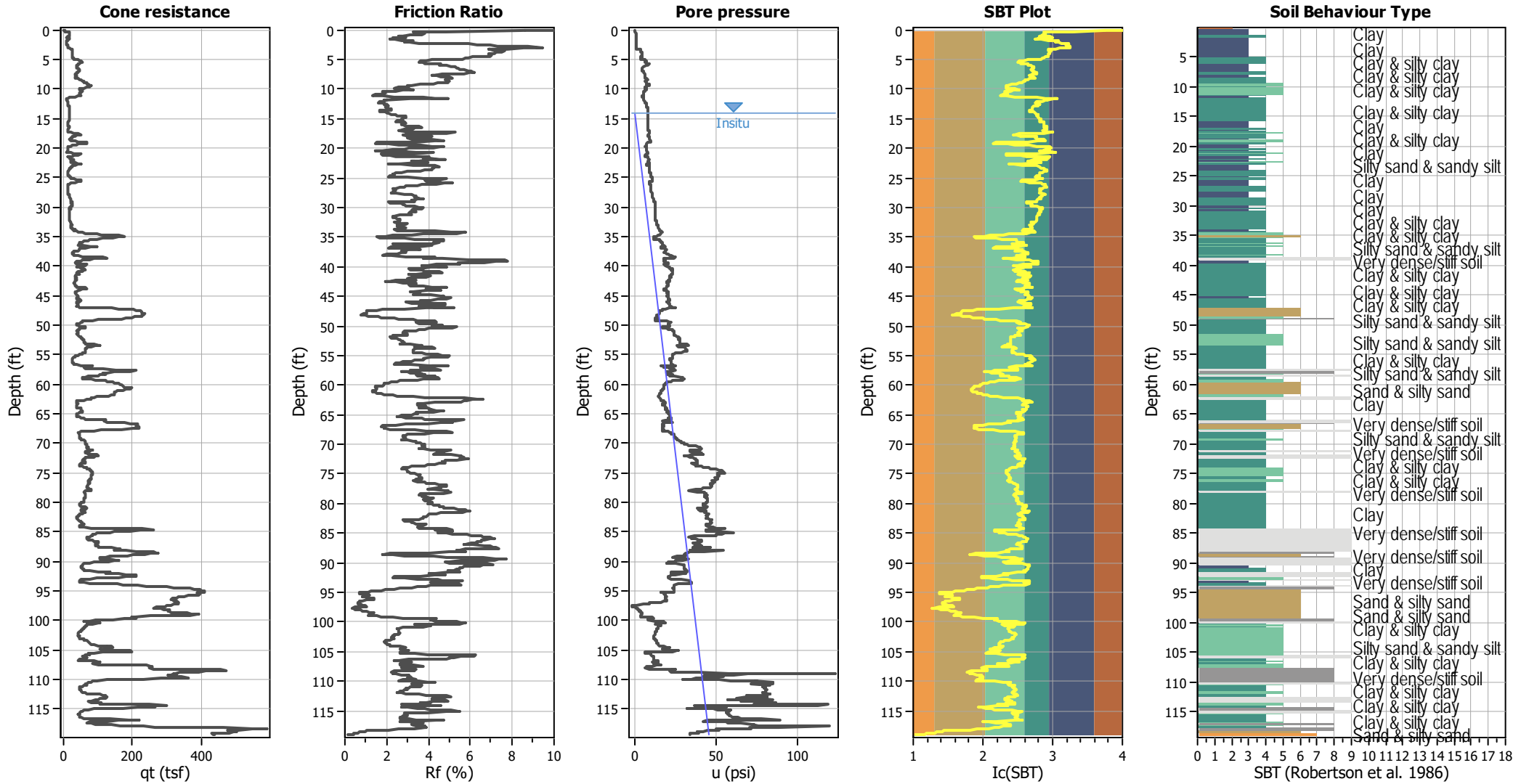
$Q_{tn,cs}$ :	Equivalent clean sand normalized cone resistance
FS:	Factor of safety against liquefaction
$e_v$ (%):	Post-liquefaction volumetric strain
DF:	$e_v$ depth weighting factor
Settlement:	Calculated settlement

**LIQUEFACTION ANALYSIS REPORT**
**Project title : 8339 W 3rd Street, Los Angeles**
**Location : 8339 W 3rd Street, Los Angeles**
**CPT file : CPT-2**
**Input parameters and analysis data**

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	14.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	14.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	60.00 ft
Earthquake magnitude $M_w$ :	6.67	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.66	Unit weight calculation:	Based on SBT	$K_0$ applied:	Yes		



### CPT basic interpretation plots



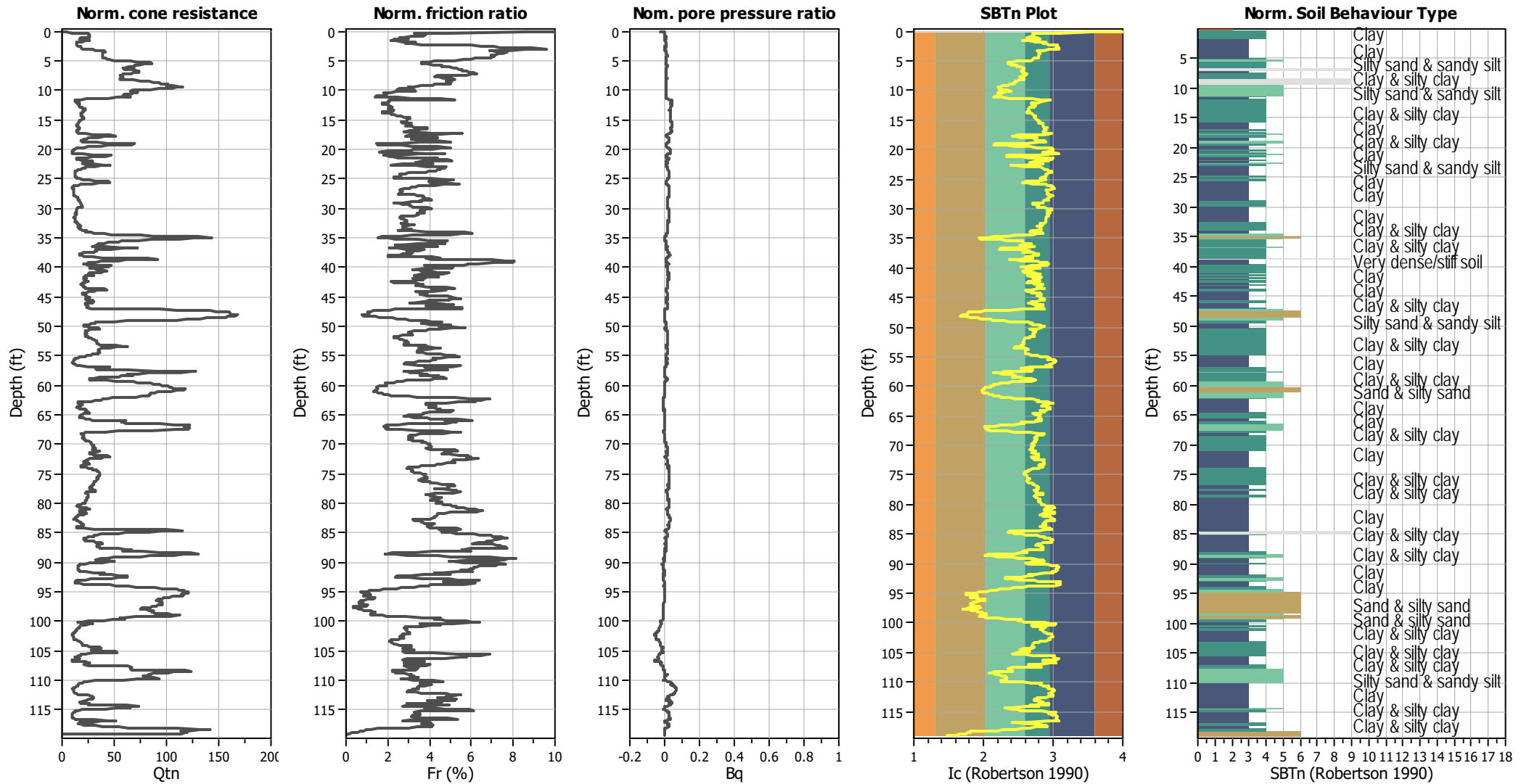
#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>o</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

#### SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

### CPT basic interpretation plots (normalized)



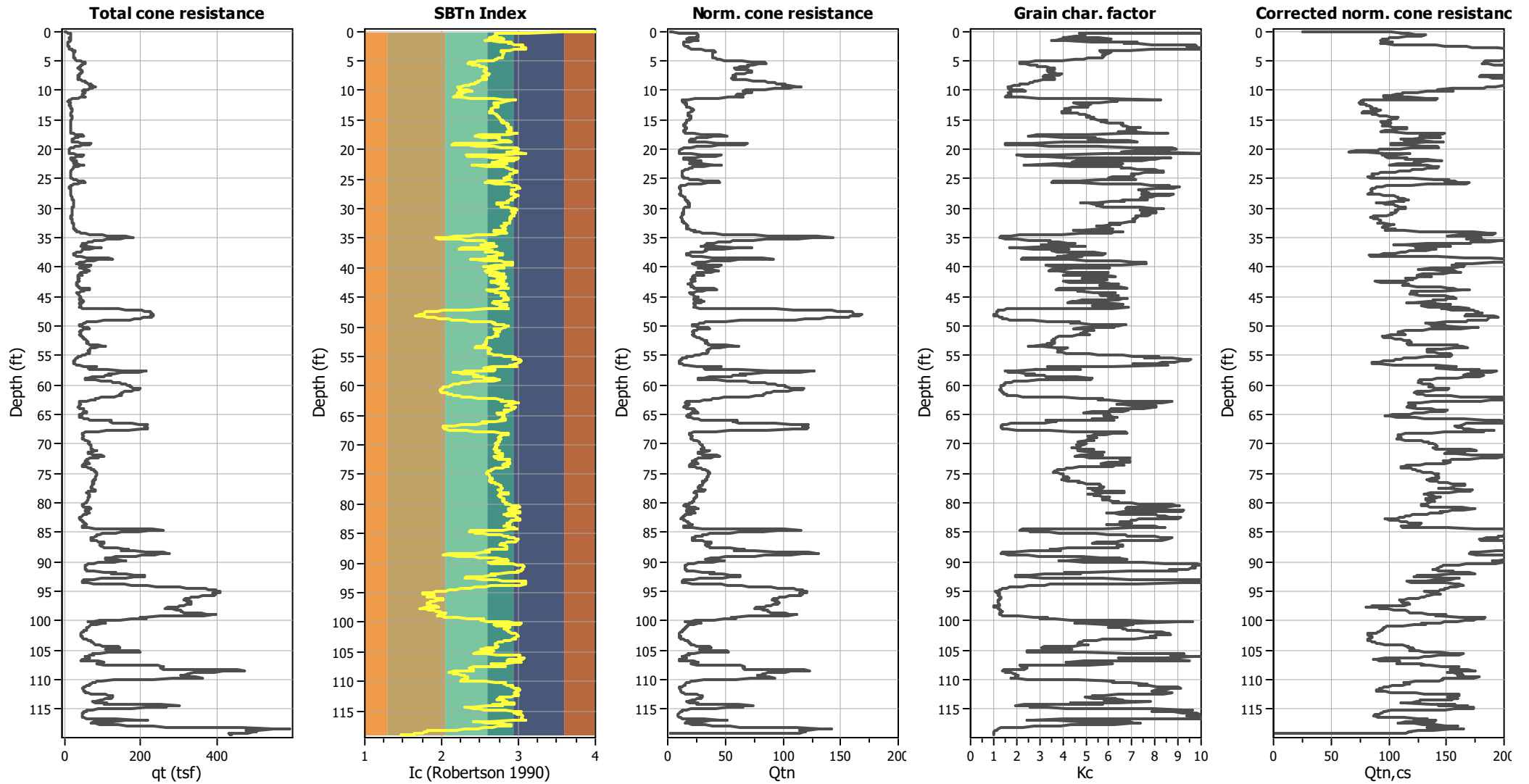
#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	$K_{\alpha}$ applied:	Yes
Earthquake magnitude $M_w$ :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

#### SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

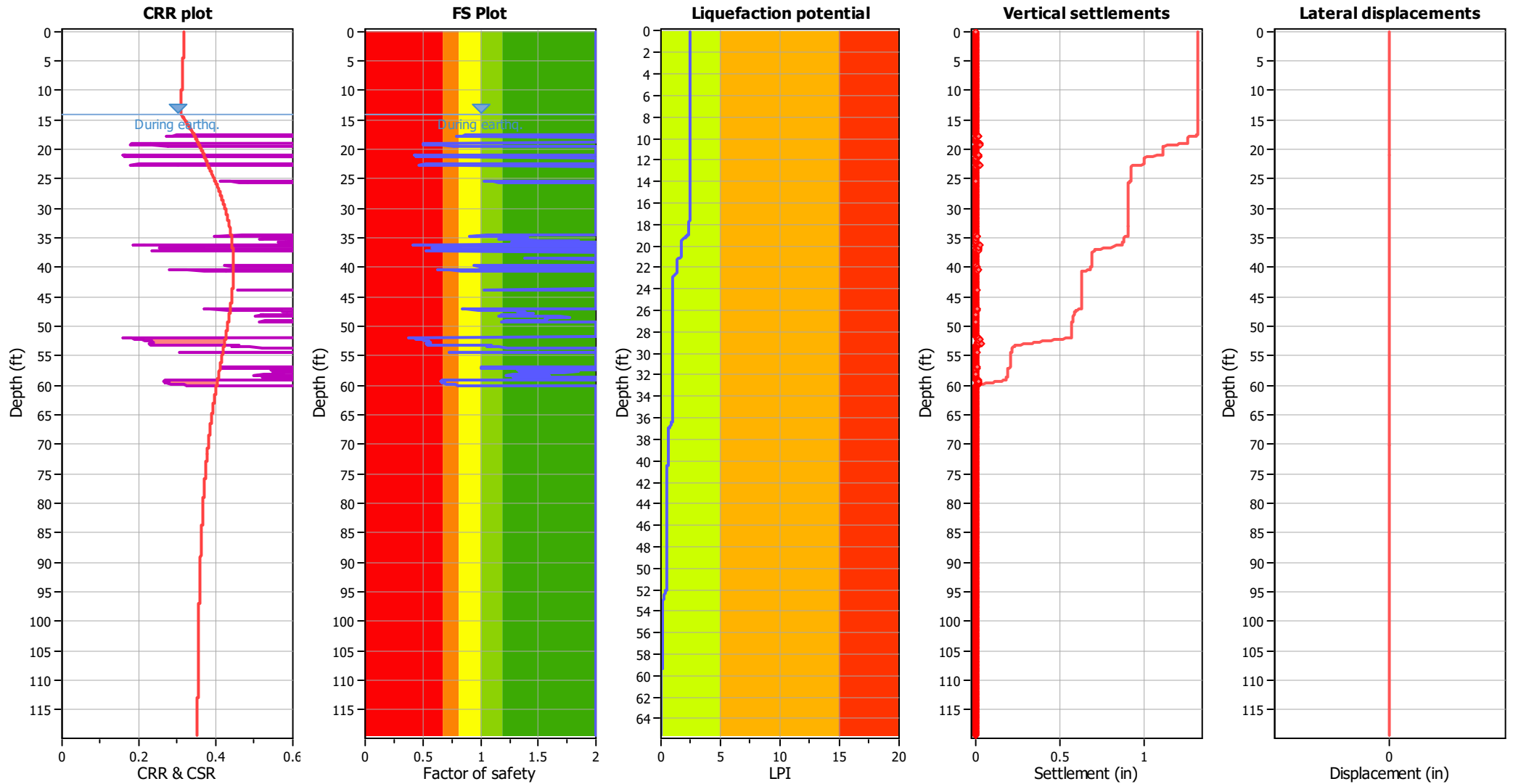
### Liquefaction analysis overall plots (intermediate results)



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>c</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

### Liquefaction analysis overall plots



**Input parameters and analysis data**

Analysis method:	NCEER (1998)	Depth to water table (earthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	$K_{\sigma}$ applied:	Yes
Earthquake magnitude $M_w$ :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

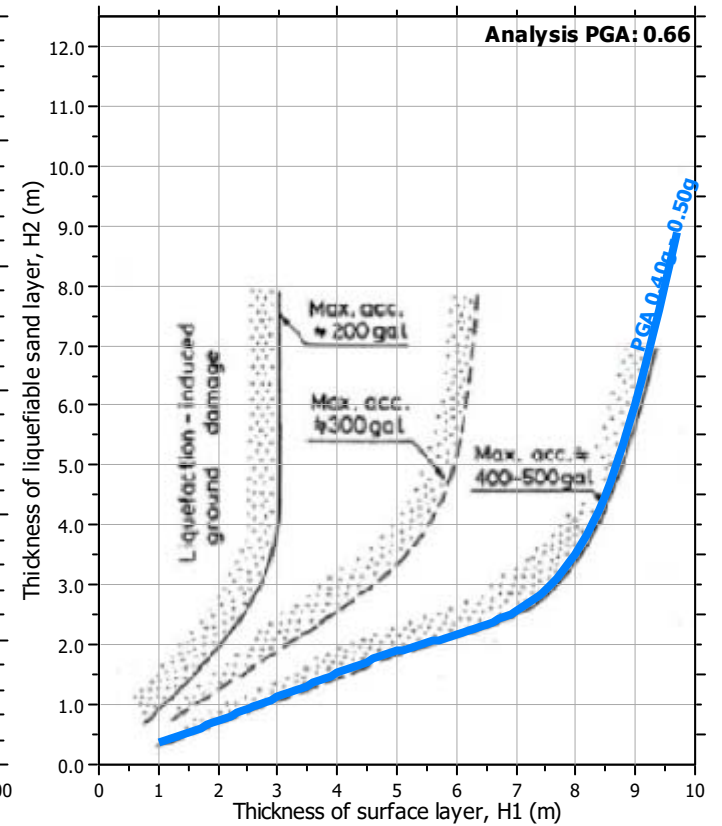
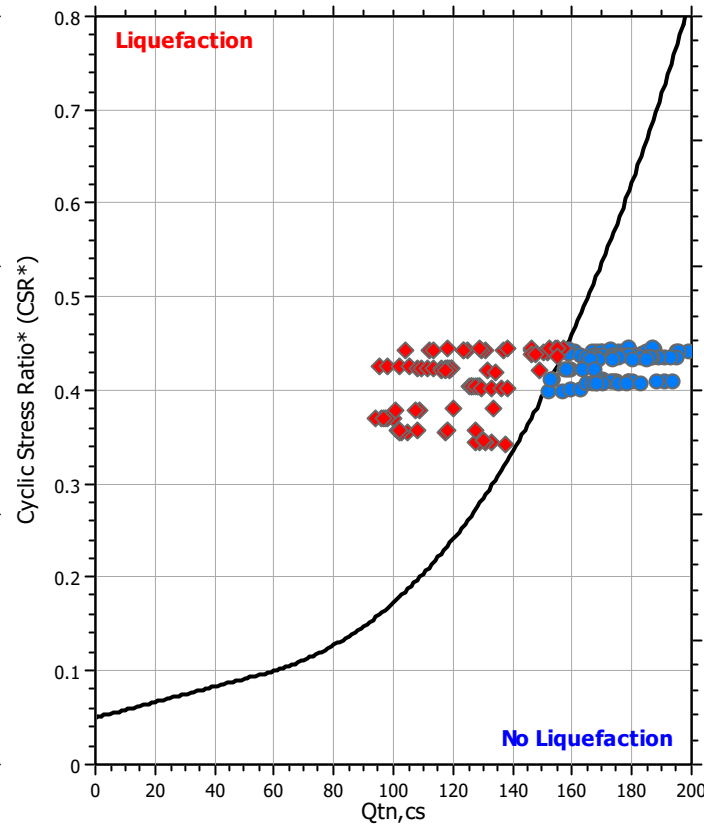
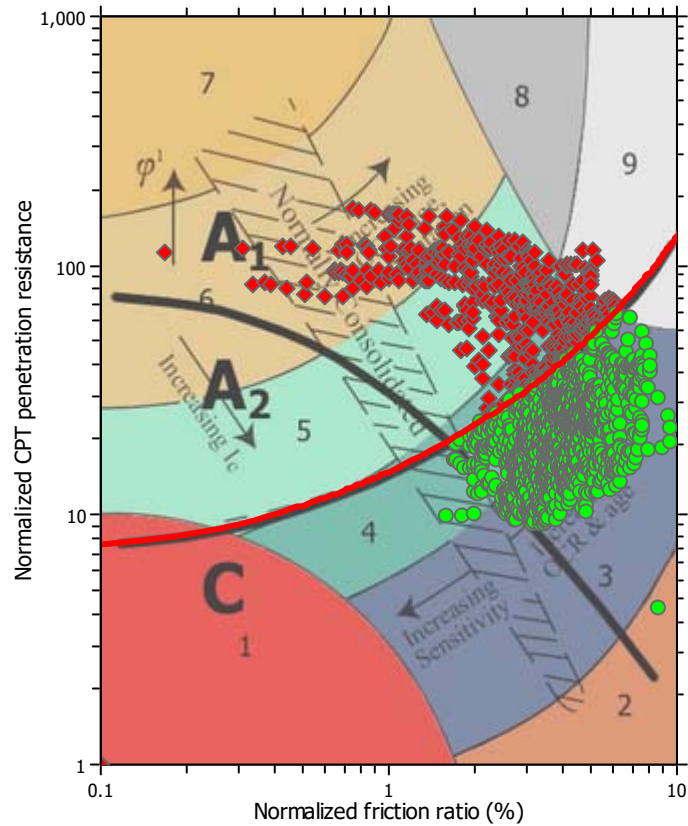
**F.S. color scheme**

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

**LPI color scheme**

- Very high risk
- High risk
- Low risk

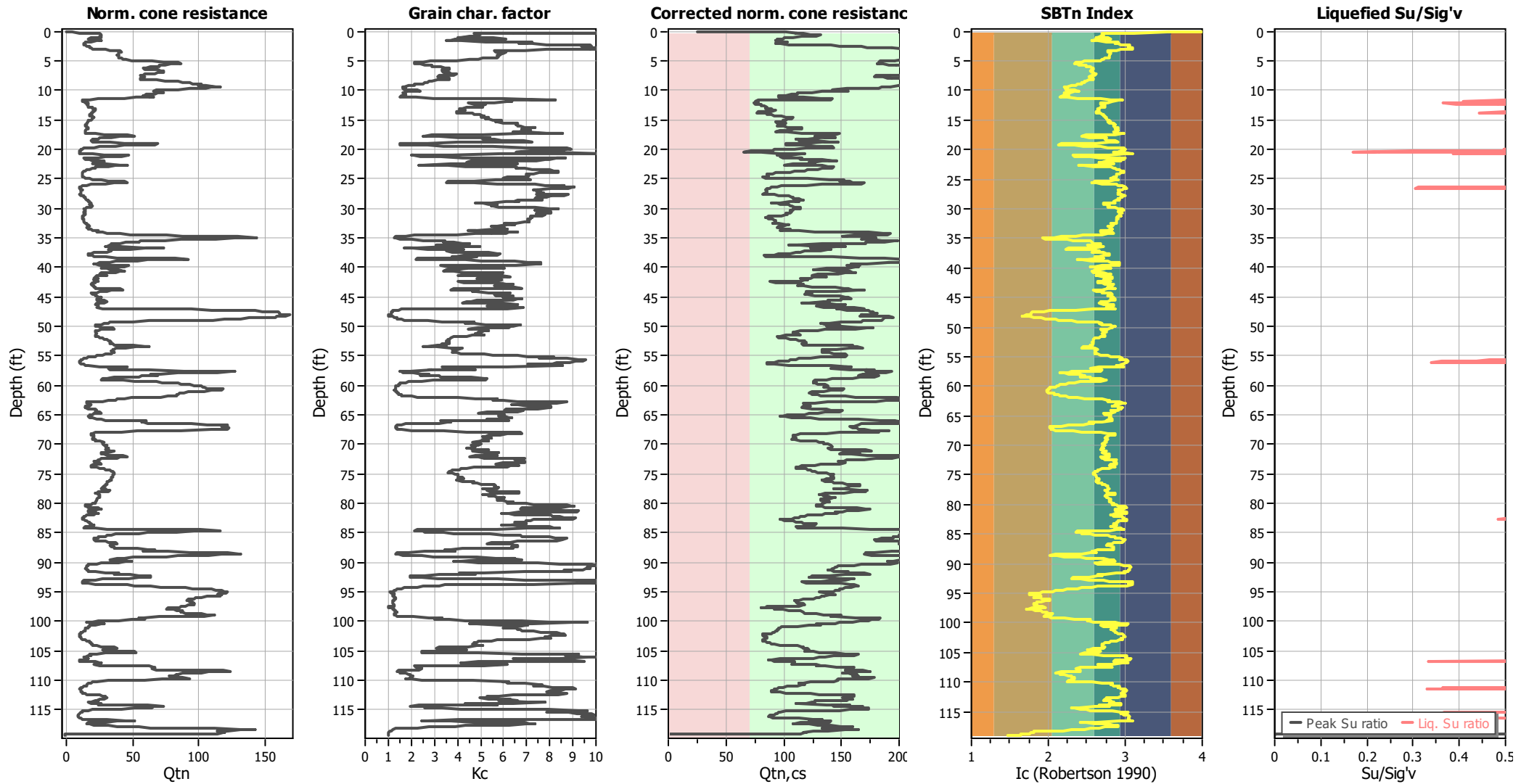
### Liquefaction analysis summary plots



**Input parameters and analysis data**

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	$K_v$ applied:	Yes
Earthquake magnitude $M_w$ :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

### Check for strength loss plots (Robertson (2010))

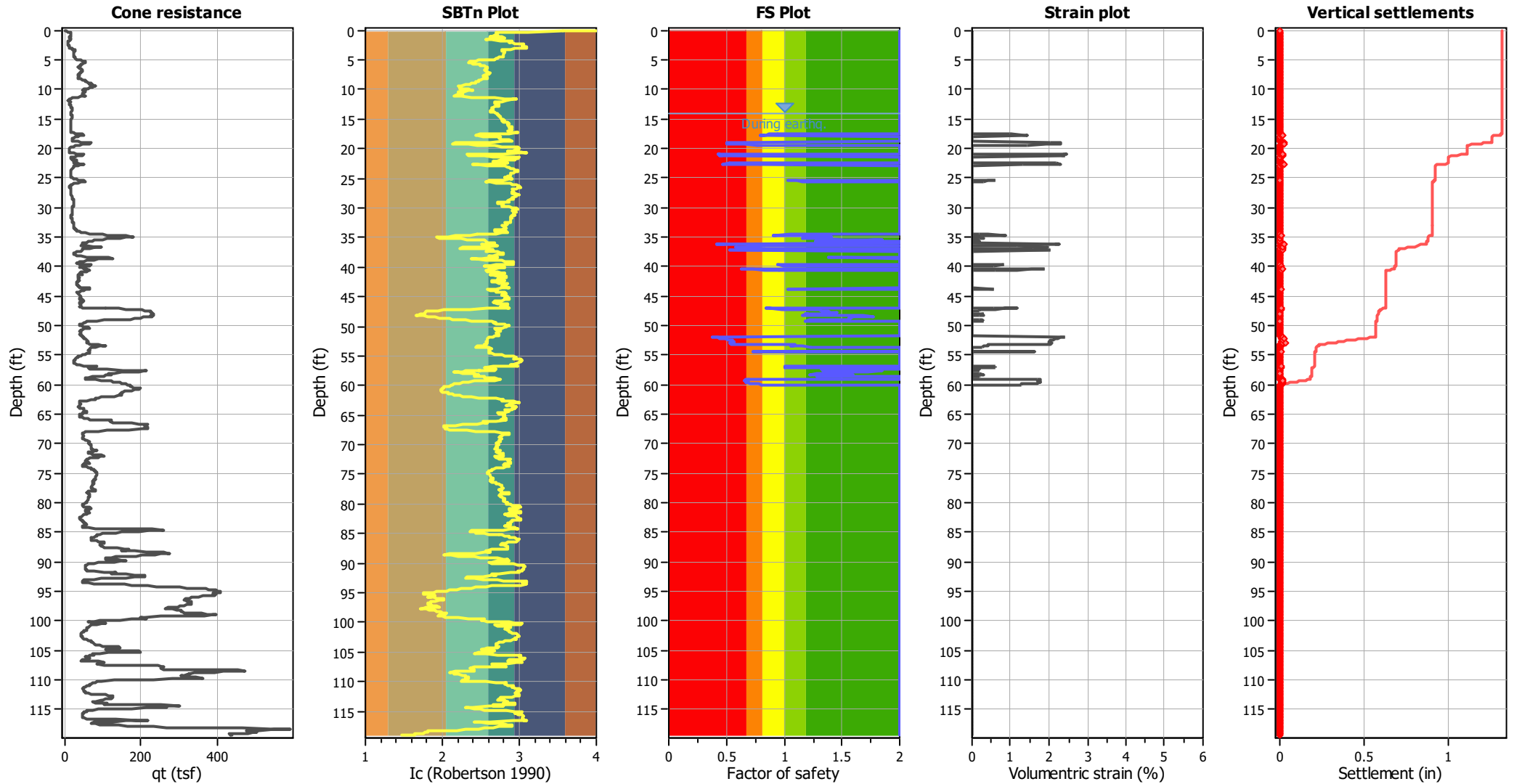


#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>c</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.67	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.66	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft



### Estimation of post-earthquake settlements



**Abbreviations**

- q<sub>c</sub>: Total cone resistance (cone resistance q<sub>c</sub> corrected for pore water effects)
- I<sub>c</sub>: Soil Behaviour Type Index
- FS: Calculated Factor of Safety against liquefaction
- Volumetric strain: Post-liquefaction volumetric strain

:: Post-earthquake settlement due to soil liquefaction ::											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
14.08	85.90	2.00	0.00	1.00	0.00	14.13	86.45	2.00	0.00	1.00	0.00
14.17	89.10	2.00	0.00	1.00	0.00	14.26	91.70	2.00	0.00	1.00	0.00
14.31	93.88	2.00	0.00	1.00	0.00	14.37	94.69	2.00	0.00	1.00	0.00
14.44	97.76	2.00	0.00	1.00	0.00	14.53	101.44	2.00	0.00	1.00	0.00
14.57	105.47	2.00	0.00	1.00	0.00	14.63	107.48	2.00	0.00	1.00	0.00
14.71	108.14	2.00	0.00	1.00	0.00	14.78	106.86	2.00	0.00	1.00	0.00
14.85	105.01	2.00	0.00	1.00	0.00	14.90	103.43	2.00	0.00	1.00	0.00
14.98	102.35	2.00	0.00	1.00	0.00	15.03	101.14	2.00	0.00	1.00	0.00
15.12	99.82	2.00	0.00	1.00	0.00	15.18	99.60	2.00	0.00	1.00	0.00
15.23	100.23	2.00	0.00	1.00	0.00	15.29	98.88	2.00	0.00	1.00	0.00
15.36	94.83	2.00	0.00	1.00	0.00	15.43	93.01	2.00	0.00	1.00	0.00
15.51	94.03	2.00	0.00	1.00	0.00	15.56	99.37	2.00	0.00	1.00	0.00
15.65	101.33	2.00	0.00	1.00	0.00	15.69	101.20	2.00	0.00	1.00	0.00
15.79	98.78	2.00	0.00	1.00	0.00	15.83	96.08	2.00	0.00	1.00	0.00
15.88	95.11	2.00	0.00	1.00	0.00	15.96	94.82	2.00	0.00	1.00	0.00
16.01	96.04	2.00	0.00	1.00	0.00	16.10	97.75	2.00	0.00	1.00	0.00
16.14	100.20	2.00	0.00	1.00	0.00	16.21	102.79	2.00	0.00	1.00	0.00
16.28	107.48	2.00	0.00	1.00	0.00	16.36	112.27	2.00	0.00	1.00	0.00
16.41	115.75	2.00	0.00	1.00	0.00	16.48	115.90	2.00	0.00	1.00	0.00
16.55	113.17	2.00	0.00	1.00	0.00	16.62	110.25	2.00	0.00	1.00	0.00
16.67	108.06	2.00	0.00	1.00	0.00	16.73	105.84	2.00	0.00	1.00	0.00
16.81	101.43	2.00	0.00	1.00	0.00	16.86	96.80	2.00	0.00	1.00	0.00
16.95	93.42	2.00	0.00	1.00	0.00	17.00	93.09	2.00	0.00	1.00	0.00
17.09	93.67	2.00	0.00	1.00	0.00	17.13	102.95	2.00	0.00	1.00	0.00
17.22	115.68	2.00	0.00	1.00	0.00	17.27	134.52	2.00	0.00	1.00	0.00
17.36	145.48	2.00	0.00	1.00	0.00	17.40	149.04	2.00	0.00	1.00	0.00
17.48	144.87	2.00	0.00	1.00	0.00	17.54	137.76	0.94	0.98	1.00	0.01
17.59	132.90	0.87	1.03	1.00	0.01	17.67	130.88	0.84	1.37	1.00	0.01
17.72	128.81	0.81	1.40	1.00	0.01	17.80	127.33	0.79	1.43	1.00	0.01
17.85	130.39	0.83	1.38	1.00	0.01	17.94	137.29	2.00	0.00	1.00	0.00
18.00	144.62	2.00	0.00	1.00	0.00	18.07	144.54	2.00	0.00	1.00	0.00
18.12	132.36	2.00	0.00	1.00	0.00	18.21	121.23	2.00	0.00	1.00	0.00
18.30	111.24	2.00	0.00	1.00	0.00	18.34	113.55	2.00	0.00	1.00	0.00
18.41	113.49	2.00	0.00	1.00	0.00	18.44	113.90	2.00	0.00	1.00	0.00
18.51	118.58	2.00	0.00	1.00	0.00	18.57	128.79	2.00	0.00	1.00	0.00
18.65	139.91	2.00	0.00	1.00	0.00	18.70	146.74	2.00	0.00	1.00	0.00
18.79	145.79	2.00	0.00	1.00	0.00	18.84	133.69	2.00	0.00	1.00	0.00
18.92	117.30	0.65	2.05	1.00	0.02	18.97	104.58	0.53	2.25	1.00	0.01
19.06	102.30	0.51	2.29	1.00	0.03	19.09	102.44	0.51	2.29	1.00	0.01
19.19	101.43	0.50	2.31	1.00	0.03	19.24	102.14	0.50	2.30	1.00	0.01
19.30	107.75	0.55	2.20	1.00	0.02	19.37	118.36	0.65	1.94	1.00	0.02
19.44	127.79	0.77	1.42	1.00	0.01	19.49	137.16	2.00	0.00	1.00	0.00
19.59	142.20	2.00	0.00	1.00	0.00	19.64	143.72	2.00	0.00	1.00	0.00
19.69	137.53	2.00	0.00	1.00	0.00	19.77	129.82	2.00	0.00	1.00	0.00
19.82	119.68	2.00	0.00	1.00	0.00	19.89	109.43	2.00	0.00	1.00	0.00
19.95	100.26	2.00	0.00	1.00	0.00	20.04	94.68	2.00	0.00	1.00	0.00
20.09	91.52	2.00	0.00	1.00	0.00	20.16	90.76	2.00	0.00	1.00	0.00
20.22	89.45	2.00	0.00	1.00	0.00	20.28	80.94	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
20.35	72.09	2.00	0.00	1.00	0.00	20.44	65.14	2.00	0.00	1.00	0.00
20.49	68.57	2.00	0.00	1.00	0.00	20.54	81.07	2.00	0.00	1.00	0.00
20.63	96.56	2.00	0.00	1.00	0.00	20.68	110.69	2.00	0.00	1.00	0.00
20.74	118.83	2.00	0.00	1.00	0.00	20.80	116.12	2.00	0.00	1.00	0.00
20.88	107.35	2.00	0.00	1.00	0.00	20.95	95.99	0.44	2.42	1.00	0.02
21.00	94.17	0.43	2.45	1.00	0.02	21.08	97.00	0.45	2.40	1.00	0.02
21.13	99.97	0.47	2.34	1.00	0.02	21.20	97.89	0.45	2.38	1.00	0.02
21.27	96.41	0.44	2.41	1.00	0.02	21.36	99.79	2.00	0.00	1.00	0.00
21.40	110.42	2.00	0.00	1.00	0.00	21.46	114.45	2.00	0.00	1.00	0.00
21.53	115.39	2.00	0.00	1.00	0.00	21.59	112.94	2.00	0.00	1.00	0.00
21.67	114.02	2.00	0.00	1.00	0.00	21.72	121.20	2.00	0.00	1.00	0.00
21.80	133.44	2.00	0.00	1.00	0.00	21.89	142.62	2.00	0.00	1.00	0.00
21.92	145.49	2.00	0.00	1.00	0.00	22.00	140.30	2.00	0.00	1.00	0.00
22.07	132.85	2.00	0.00	1.00	0.00	22.11	125.48	2.00	0.00	1.00	0.00
22.20	122.46	2.00	0.00	1.00	0.00	22.25	122.12	2.00	0.00	1.00	0.00
22.32	125.29	2.00	0.00	1.00	0.00	22.39	127.60	2.00	0.00	1.00	0.00
22.47	123.00	2.00	0.00	1.00	0.00	22.52	108.70	0.53	2.18	1.00	0.01
22.59	100.93	0.46	2.32	1.00	0.02	22.65	107.59	0.52	2.20	1.00	0.02
22.74	119.96	0.63	2.01	1.00	0.02	22.79	133.51	0.79	1.33	1.00	0.01
22.85	138.85	2.00	0.00	1.00	0.00	22.91	142.30	2.00	0.00	1.00	0.00
22.98	142.64	2.00	0.00	1.00	0.00	23.06	143.59	2.00	0.00	1.00	0.00
23.11	141.93	2.00	0.00	1.00	0.00	23.18	139.20	2.00	0.00	1.00	0.00
23.24	136.17	2.00	0.00	1.00	0.00	23.30	133.07	2.00	0.00	1.00	0.00
23.37	130.18	2.00	0.00	1.00	0.00	23.45	127.13	2.00	0.00	1.00	0.00
23.52	124.76	2.00	0.00	1.00	0.00	23.56	121.22	2.00	0.00	1.00	0.00
23.65	117.63	2.00	0.00	1.00	0.00	23.69	113.24	2.00	0.00	1.00	0.00
23.76	109.37	2.00	0.00	1.00	0.00	23.83	105.25	2.00	0.00	1.00	0.00
23.89	100.72	2.00	0.00	1.00	0.00	23.96	96.98	2.00	0.00	1.00	0.00
24.02	93.08	2.00	0.00	1.00	0.00	24.10	90.08	2.00	0.00	1.00	0.00
24.16	87.26	2.00	0.00	1.00	0.00	24.23	86.08	2.00	0.00	1.00	0.00
24.32	85.70	2.00	0.00	1.00	0.00	24.36	85.90	2.00	0.00	1.00	0.00
24.41	86.10	2.00	0.00	1.00	0.00	24.49	86.39	2.00	0.00	1.00	0.00
24.55	86.37	2.00	0.00	1.00	0.00	24.61	85.47	2.00	0.00	1.00	0.00
24.67	83.79	2.00	0.00	1.00	0.00	24.77	82.22	2.00	0.00	1.00	0.00
24.81	83.98	2.00	0.00	1.00	0.00	24.89	90.60	2.00	0.00	1.00	0.00
24.95	103.62	2.00	0.00	1.00	0.00	25.01	120.38	2.00	0.00	1.00	0.00
25.08	139.35	2.00	0.00	1.00	0.00	25.17	150.60	2.00	0.00	1.00	0.00
25.21	151.76	2.00	0.00	1.00	0.00	25.29	148.56	2.00	0.00	1.00	0.00
25.35	147.97	2.00	0.00	1.00	0.00	25.40	152.59	1.03	0.60	1.00	0.00
25.49	156.95	1.10	0.41	1.00	0.00	25.53	160.02	1.16	0.29	1.00	0.00
25.62	163.14	1.21	0.29	1.00	0.00	25.66	166.71	2.00	0.00	1.00	0.00
25.73	169.20	2.00	0.00	1.00	0.00	25.80	166.81	2.00	0.00	1.00	0.00
25.89	159.78	2.00	0.00	1.00	0.00	25.92	146.36	2.00	0.00	1.00	0.00
26.02	133.53	2.00	0.00	1.00	0.00	26.07	119.41	2.00	0.00	1.00	0.00
26.14	111.55	2.00	0.00	1.00	0.00	26.20	104.42	2.00	0.00	1.00	0.00
26.25	98.38	2.00	0.00	1.00	0.00	26.34	94.23	2.00	0.00	1.00	0.00
26.39	91.72	2.00	0.00	1.00	0.00	26.48	90.30	2.00	0.00	1.00	0.00
26.51	89.03	2.00	0.00	1.00	0.00	26.61	88.07	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
26.65	87.14	2.00	0.00	1.00	0.00	26.73	85.57	2.00	0.00	1.00	0.00
26.79	84.50	2.00	0.00	1.00	0.00	26.85	84.28	2.00	0.00	1.00	0.00
26.90	84.73	2.00	0.00	1.00	0.00	27.00	85.53	2.00	0.00	1.00	0.00
27.06	85.98	2.00	0.00	1.00	0.00	27.13	86.10	2.00	0.00	1.00	0.00
27.19	85.61	2.00	0.00	1.00	0.00	27.23	84.97	2.00	0.00	1.00	0.00
27.32	84.95	2.00	0.00	1.00	0.00	27.36	84.23	2.00	0.00	1.00	0.00
27.46	83.81	2.00	0.00	1.00	0.00	27.51	81.91	2.00	0.00	1.00	0.00
27.56	83.24	2.00	0.00	1.00	0.00	27.64	86.46	2.00	0.00	1.00	0.00
27.72	91.84	2.00	0.00	1.00	0.00	27.76	95.14	2.00	0.00	1.00	0.00
27.83	98.85	2.00	0.00	1.00	0.00	27.91	101.47	2.00	0.00	1.00	0.00
27.95	104.95	2.00	0.00	1.00	0.00	28.05	106.83	2.00	0.00	1.00	0.00
28.09	108.21	2.00	0.00	1.00	0.00	28.17	108.69	2.00	0.00	1.00	0.00
28.23	108.54	2.00	0.00	1.00	0.00	28.28	108.71	2.00	0.00	1.00	0.00
28.37	110.34	2.00	0.00	1.00	0.00	28.43	113.48	2.00	0.00	1.00	0.00
28.50	115.93	2.00	0.00	1.00	0.00	28.54	116.52	2.00	0.00	1.00	0.00
28.61	114.47	2.00	0.00	1.00	0.00	28.68	112.27	2.00	0.00	1.00	0.00
28.77	110.56	2.00	0.00	1.00	0.00	28.81	111.27	2.00	0.00	1.00	0.00
28.90	112.74	2.00	0.00	1.00	0.00	28.95	105.93	2.00	0.00	1.00	0.00
29.04	97.22	2.00	0.00	1.00	0.00	29.08	88.84	2.00	0.00	1.00	0.00
29.17	90.32	2.00	0.00	1.00	0.00	29.22	94.27	2.00	0.00	1.00	0.00
29.30	97.28	2.00	0.00	1.00	0.00	29.34	101.13	2.00	0.00	1.00	0.00
29.40	103.41	2.00	0.00	1.00	0.00	29.46	104.81	2.00	0.00	1.00	0.00
29.53	105.22	2.00	0.00	1.00	0.00	29.59	106.01	2.00	0.00	1.00	0.00
29.68	107.24	2.00	0.00	1.00	0.00	29.73	108.87	2.00	0.00	1.00	0.00
29.80	110.62	2.00	0.00	1.00	0.00	29.86	112.58	2.00	0.00	1.00	0.00
29.93	113.94	2.00	0.00	1.00	0.00	30.00	113.89	2.00	0.00	1.00	0.00
30.06	112.83	2.00	0.00	1.00	0.00	30.13	111.01	2.00	0.00	1.00	0.00
30.20	108.57	2.00	0.00	1.00	0.00	30.27	107.68	2.00	0.00	1.00	0.00
30.32	106.67	2.00	0.00	1.00	0.00	30.40	106.02	2.00	0.00	1.00	0.00
30.45	105.67	2.00	0.00	1.00	0.00	30.52	105.71	2.00	0.00	1.00	0.00
30.58	106.66	2.00	0.00	1.00	0.00	30.66	106.50	2.00	0.00	1.00	0.00
30.72	105.77	2.00	0.00	1.00	0.00	30.79	104.35	2.00	0.00	1.00	0.00
30.85	102.95	2.00	0.00	1.00	0.00	30.94	102.44	2.00	0.00	1.00	0.00
30.99	102.72	2.00	0.00	1.00	0.00	31.05	102.99	2.00	0.00	1.00	0.00
31.12	103.33	2.00	0.00	1.00	0.00	31.18	101.92	2.00	0.00	1.00	0.00
31.25	97.49	2.00	0.00	1.00	0.00	31.30	91.78	2.00	0.00	1.00	0.00
31.39	87.20	2.00	0.00	1.00	0.00	31.44	85.50	2.00	0.00	1.00	0.00
31.50	84.76	2.00	0.00	1.00	0.00	31.57	85.02	2.00	0.00	1.00	0.00
31.65	85.59	2.00	0.00	1.00	0.00	31.70	86.40	2.00	0.00	1.00	0.00
31.76	87.28	2.00	0.00	1.00	0.00	31.83	88.56	2.00	0.00	1.00	0.00
31.89	90.44	2.00	0.00	1.00	0.00	31.97	92.09	2.00	0.00	1.00	0.00
32.02	93.29	2.00	0.00	1.00	0.00	32.10	93.54	2.00	0.00	1.00	0.00
32.17	93.39	2.00	0.00	1.00	0.00	32.24	93.34	2.00	0.00	1.00	0.00
32.29	93.42	2.00	0.00	1.00	0.00	32.38	92.82	2.00	0.00	1.00	0.00
32.42	91.46	2.00	0.00	1.00	0.00	32.50	90.29	2.00	0.00	1.00	0.00
32.56	91.21	2.00	0.00	1.00	0.00	32.64	95.56	2.00	0.00	1.00	0.00
32.69	101.39	2.00	0.00	1.00	0.00	32.75	104.72	2.00	0.00	1.00	0.00
32.83	103.12	2.00	0.00	1.00	0.00	32.91	99.30	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
32.95	96.57	2.00	0.00	1.00	0.00	33.02	96.64	2.00	0.00	1.00	0.00
33.07	96.53	2.00	0.00	1.00	0.00	33.14	95.60	2.00	0.00	1.00	0.00
33.22	94.78	2.00	0.00	1.00	0.00	33.27	94.59	2.00	0.00	1.00	0.00
33.33	96.14	2.00	0.00	1.00	0.00	33.41	99.37	2.00	0.00	1.00	0.00
33.50	103.65	2.00	0.00	1.00	0.00	33.54	105.60	2.00	0.00	1.00	0.00
33.62	102.74	2.00	0.00	1.00	0.00	33.66	97.11	2.00	0.00	1.00	0.00
33.75	96.69	2.00	0.00	1.00	0.00	33.81	101.76	2.00	0.00	1.00	0.00
33.86	112.99	2.00	0.00	1.00	0.00	33.93	127.66	2.00	0.00	1.00	0.00
34.00	142.94	2.00	0.00	1.00	0.00	34.06	159.12	2.00	0.00	1.00	0.00
34.12	173.37	2.00	0.00	1.00	0.00	34.21	185.59	2.00	0.00	1.00	0.00
34.26	192.39	2.00	0.00	1.00	0.00	34.34	192.73	2.00	0.00	1.00	0.00
34.39	189.32	2.00	0.00	1.00	0.00	34.47	183.86	1.50	0.00	1.00	0.00
34.52	172.82	1.27	0.20	1.00	0.00	34.59	160.87	1.06	0.40	1.00	0.00
34.66	151.91	0.92	0.84	1.00	0.01	34.72	150.35	0.90	0.86	1.00	0.01
34.79	157.17	1.00	0.58	1.00	0.01	34.88	168.19	1.19	0.28	1.00	0.00
34.92	178.64	1.39	0.00	1.00	0.00	34.98	180.03	1.41	0.00	1.00	0.00
35.06	177.28	1.36	0.00	1.00	0.00	35.11	170.43	1.23	0.28	1.00	0.00
35.20	166.80	1.16	0.28	1.00	0.00	35.24	169.61	1.21	0.28	1.00	0.00
35.33	175.53	1.32	0.19	1.00	0.00	35.38	185.48	1.53	0.00	1.00	0.00
35.47	195.22	1.75	0.00	1.00	0.00	35.50	199.29	1.85	0.00	1.00	0.00
35.60	196.03	1.77	0.00	1.00	0.00	35.65	187.73	1.57	0.00	1.00	0.00
35.72	179.22	1.39	0.00	1.00	0.00	35.78	173.25	1.28	0.20	1.00	0.00
35.84	170.75	2.00	0.00	1.00	0.00	35.91	170.78	2.00	0.00	1.00	0.00
35.96	168.64	2.00	0.00	1.00	0.00	36.05	157.61	2.00	0.00	1.00	0.00
36.09	133.33	2.00	0.00	1.00	0.00	36.17	111.76	0.47	2.13	1.00	0.02
36.23	103.93	0.42	2.26	1.00	0.02	36.32	113.12	0.48	2.11	1.00	0.02
36.36	129.68	2.00	0.00	1.00	0.00	36.43	144.52	2.00	0.00	1.00	0.00
36.48	152.87	2.00	0.00	1.00	0.00	36.55	146.07	0.83	1.17	1.00	0.01
36.62	130.76	0.65	1.88	1.00	0.01	36.71	125.08	0.59	1.94	1.00	0.02
36.76	123.20	0.57	1.97	1.00	0.01	36.81	123.22	0.57	1.97	1.00	0.01
36.89	129.48	0.64	1.89	1.00	0.02	36.98	137.07	0.72	1.57	1.00	0.02
37.03	140.77	2.00	0.00	1.00	0.00	37.07	138.98	2.00	0.00	1.00	0.00
37.17	132.39	2.00	0.00	1.00	0.00	37.21	125.19	2.00	0.00	1.00	0.00
37.29	118.00	0.52	2.04	1.00	0.02	37.34	114.89	2.00	0.00	1.00	0.00
37.43	112.42	2.00	0.00	1.00	0.00	37.47	112.95	2.00	0.00	1.00	0.00
37.53	110.38	2.00	0.00	1.00	0.00	37.61	106.06	2.00	0.00	1.00	0.00
37.67	100.33	2.00	0.00	1.00	0.00	37.74	95.59	2.00	0.00	1.00	0.00
37.84	92.04	2.00	0.00	1.00	0.00	37.87	88.96	2.00	0.00	1.00	0.00
37.95	86.32	2.00	0.00	1.00	0.00	38.01	83.07	2.00	0.00	1.00	0.00
38.08	84.70	2.00	0.00	1.00	0.00	38.15	88.47	2.00	0.00	1.00	0.00
38.19	97.56	2.00	0.00	1.00	0.00	38.26	114.02	2.00	0.00	1.00	0.00
38.32	142.77	2.00	0.00	1.00	0.00	38.42	165.51	2.00	0.00	1.00	0.00
38.46	179.32	1.38	0.00	1.00	0.00	38.55	186.96	1.54	0.00	1.00	0.00
38.60	204.49	2.00	0.00	1.00	0.00	38.68	223.71	2.00	0.00	1.00	0.00
38.73	251.77	2.00	0.00	1.00	0.00	38.79	265.94	2.00	0.00	1.00	0.00
38.87	270.32	2.00	0.00	1.00	0.00	38.91	265.10	2.00	0.00	1.00	0.00
38.98	257.43	2.00	0.00	1.00	0.00	39.05	243.89	2.00	0.00	1.00	0.00
39.13	227.48	2.00	0.00	1.00	0.00	39.19	209.65	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
39.24	191.30	2.00	0.00	1.00	0.00	39.32	172.87	2.00	0.00	1.00	0.00
39.40	160.73	2.00	0.00	1.00	0.00	39.45	158.50	2.00	0.00	1.00	0.00
39.50	162.72	2.00	0.00	1.00	0.00	39.58	166.46	2.00	0.00	1.00	0.00
39.64	162.15	2.00	0.00	1.00	0.00	39.72	158.84	2.00	0.00	1.00	0.00
39.77	154.25	0.95	0.83	1.00	0.00	39.85	157.18	0.99	0.58	1.00	0.01
39.90	159.47	2.00	0.00	1.00	0.00	39.97	164.77	2.00	0.00	1.00	0.00
40.04	162.10	2.00	0.00	1.00	0.00	40.12	156.44	2.00	0.00	1.00	0.00
40.17	146.45	2.00	0.00	1.00	0.00	40.26	137.31	2.00	0.00	1.00	0.00
40.31	126.95	2.00	0.00	1.00	0.00	40.36	125.19	2.00	0.00	1.00	0.00
40.43	128.99	0.63	1.90	1.00	0.02	40.49	138.34	0.73	1.55	1.00	0.01
40.56	146.17	0.83	1.17	1.00	0.01	40.64	152.46	0.92	0.84	1.00	0.01
40.69	155.10	0.96	0.59	1.00	0.00	40.76	156.71	2.00	0.00	1.00	0.00
40.84	159.79	2.00	0.00	1.00	0.00	40.89	162.01	2.00	0.00	1.00	0.00
40.97	159.60	2.00	0.00	1.00	0.00	41.02	154.05	2.00	0.00	1.00	0.00
41.11	147.23	2.00	0.00	1.00	0.00	41.15	139.89	2.00	0.00	1.00	0.00
41.24	130.07	2.00	0.00	1.00	0.00	41.29	124.19	2.00	0.00	1.00	0.00
41.34	124.63	2.00	0.00	1.00	0.00	41.42	129.91	2.00	0.00	1.00	0.00
41.51	135.21	2.00	0.00	1.00	0.00	41.56	136.99	2.00	0.00	1.00	0.00
41.61	135.38	2.00	0.00	1.00	0.00	41.69	131.54	2.00	0.00	1.00	0.00
41.74	126.17	2.00	0.00	1.00	0.00	41.82	123.58	2.00	0.00	1.00	0.00
41.87	118.62	2.00	0.00	1.00	0.00	41.95	115.24	2.00	0.00	1.00	0.00
42.00	114.85	2.00	0.00	1.00	0.00	42.10	118.14	2.00	0.00	1.00	0.00
42.14	120.43	2.00	0.00	1.00	0.00	42.21	117.84	2.00	0.00	1.00	0.00
42.28	113.88	2.00	0.00	1.00	0.00	42.33	102.11	2.00	0.00	1.00	0.00
42.41	93.82	2.00	0.00	1.00	0.00	42.45	88.53	2.00	0.00	1.00	0.00
42.53	93.27	2.00	0.00	1.00	0.00	42.59	100.18	2.00	0.00	1.00	0.00
42.68	106.35	2.00	0.00	1.00	0.00	42.72	112.59	2.00	0.00	1.00	0.00
42.80	115.13	2.00	0.00	1.00	0.00	42.86	116.79	2.00	0.00	1.00	0.00
42.95	116.38	2.00	0.00	1.00	0.00	42.99	114.28	2.00	0.00	1.00	0.00
43.06	112.34	2.00	0.00	1.00	0.00	43.12	113.60	2.00	0.00	1.00	0.00
43.18	116.58	2.00	0.00	1.00	0.00	43.26	124.10	2.00	0.00	1.00	0.00
43.34	129.90	2.00	0.00	1.00	0.00	43.39	137.75	2.00	0.00	1.00	0.00
43.44	144.54	2.00	0.00	1.00	0.00	43.52	152.47	2.00	0.00	1.00	0.00
43.58	156.11	2.00	0.00	1.00	0.00	43.66	156.09	2.00	0.00	1.00	0.00
43.70	156.39	2.00	0.00	1.00	0.00	43.80	159.24	1.03	0.57	1.00	0.01
43.87	164.69	2.00	0.00	1.00	0.00	43.93	170.40	2.00	0.00	1.00	0.00
43.98	164.48	2.00	0.00	1.00	0.00	44.05	145.86	2.00	0.00	1.00	0.00
44.10	126.12	2.00	0.00	1.00	0.00	44.20	119.76	2.00	0.00	1.00	0.00
44.25	123.96	2.00	0.00	1.00	0.00	44.30	124.67	2.00	0.00	1.00	0.00
44.38	122.09	2.00	0.00	1.00	0.00	44.42	120.05	2.00	0.00	1.00	0.00
44.49	117.85	2.00	0.00	1.00	0.00	44.56	117.71	2.00	0.00	1.00	0.00
44.64	117.74	2.00	0.00	1.00	0.00	44.70	120.18	2.00	0.00	1.00	0.00
44.77	127.21	2.00	0.00	1.00	0.00	44.83	137.68	2.00	0.00	1.00	0.00
44.90	148.00	2.00	0.00	1.00	0.00	44.97	153.24	2.00	0.00	1.00	0.00
45.03	154.39	2.00	0.00	1.00	0.00	45.09	154.14	2.00	0.00	1.00	0.00
45.18	155.88	2.00	0.00	1.00	0.00	45.23	158.58	2.00	0.00	1.00	0.00
45.28	159.10	2.00	0.00	1.00	0.00	45.35	154.07	2.00	0.00	1.00	0.00
45.41	150.30	2.00	0.00	1.00	0.00	45.49	149.32	2.00	0.00	1.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
45.55	148.26	2.00	0.00	1.00	0.00	45.62	143.54	2.00	0.00	1.00	0.00
45.68	138.07	2.00	0.00	1.00	0.00	45.77	137.76	2.00	0.00	1.00	0.00
45.82	139.84	2.00	0.00	1.00	0.00	45.90	134.07	2.00	0.00	1.00	0.00
45.95	122.56	2.00	0.00	1.00	0.00	46.00	115.52	2.00	0.00	1.00	0.00
46.09	120.57	2.00	0.00	1.00	0.00	46.13	136.09	2.00	0.00	1.00	0.00
46.22	146.12	2.00	0.00	1.00	0.00	46.26	152.29	2.00	0.00	1.00	0.00
46.34	153.83	2.00	0.00	1.00	0.00	46.40	152.03	2.00	0.00	1.00	0.00
46.49	149.06	2.00	0.00	1.00	0.00	46.53	140.61	2.00	0.00	1.00	0.00
46.60	133.11	2.00	0.00	1.00	0.00	46.66	128.70	2.00	0.00	1.00	0.00
46.73	134.31	2.00	0.00	1.00	0.00	46.80	147.11	2.00	0.00	1.00	0.00
46.88	161.47	2.00	0.00	1.00	0.00	46.94	170.05	2.00	0.00	1.00	0.00
46.99	158.74	1.03	0.57	1.00	0.00	47.07	146.26	0.85	1.17	1.00	0.01
47.12	147.90	0.87	0.88	1.00	0.01	47.20	155.32	0.98	0.59	1.00	0.01
47.25	163.06	1.11	0.40	1.00	0.00	47.34	170.17	1.23	0.28	1.00	0.00
47.39	174.14	1.31	0.19	1.00	0.00	47.46	174.59	1.32	0.19	1.00	0.00
47.52	174.78	1.32	0.19	1.00	0.00	47.61	175.89	1.34	0.19	1.00	0.00
47.66	177.69	1.38	0.00	1.00	0.00	47.74	178.73	1.40	0.00	1.00	0.00
47.78	180.35	1.43	0.00	1.00	0.00	47.88	181.20	1.45	0.00	1.00	0.00
47.92	179.33	1.41	0.00	1.00	0.00	47.97	167.49	1.19	0.28	1.00	0.00
48.05	167.68	1.19	0.28	1.00	0.00	48.15	168.31	1.20	0.28	1.00	0.00
48.19	165.42	1.15	0.29	1.00	0.00	48.23	175.61	1.34	0.19	1.00	0.00
48.30	183.52	1.51	0.00	1.00	0.00	48.36	191.55	1.69	0.00	1.00	0.00
48.43	195.15	1.78	0.00	1.00	0.00	48.52	193.39	1.73	0.00	1.00	0.00
48.56	189.10	1.63	0.00	1.00	0.00	48.66	187.26	1.59	0.00	1.00	0.00
48.70	186.22	1.57	0.00	1.00	0.00	48.78	185.99	1.56	0.00	1.00	0.00
48.83	186.56	1.58	0.00	1.00	0.00	48.91	185.21	1.55	0.00	1.00	0.00
48.97	180.60	1.45	0.00	1.00	0.00	49.03	173.67	1.31	0.20	1.00	0.00
49.09	168.97	1.22	0.28	1.00	0.00	49.15	166.77	1.18	0.28	1.00	0.00
49.23	166.63	2.00	0.00	1.00	0.00	49.28	160.87	2.00	0.00	1.00	0.00
49.35	150.22	2.00	0.00	1.00	0.00	49.42	139.15	2.00	0.00	1.00	0.00
49.49	132.49	2.00	0.00	1.00	0.00	49.55	133.33	2.00	0.00	1.00	0.00
49.65	137.59	2.00	0.00	1.00	0.00	49.68	143.20	2.00	0.00	1.00	0.00
49.78	146.06	2.00	0.00	1.00	0.00	49.82	148.12	2.00	0.00	1.00	0.00
49.87	142.96	2.00	0.00	1.00	0.00	49.96	136.96	2.00	0.00	1.00	0.00
50.02	138.17	2.00	0.00	1.00	0.00	50.09	149.42	2.00	0.00	1.00	0.00
50.14	164.77	2.00	0.00	1.00	0.00	50.22	175.29	2.00	0.00	1.00	0.00
50.27	177.83	2.00	0.00	1.00	0.00	50.34	172.80	2.00	0.00	1.00	0.00
50.40	162.01	2.00	0.00	1.00	0.00	50.46	152.20	2.00	0.00	1.00	0.00
50.53	142.85	2.00	0.00	1.00	0.00	50.62	135.84	2.00	0.00	1.00	0.00
50.66	129.81	2.00	0.00	1.00	0.00	50.75	125.12	2.00	0.00	1.00	0.00
50.80	119.09	2.00	0.00	1.00	0.00	50.85	113.84	2.00	0.00	1.00	0.00
50.93	109.66	2.00	0.00	1.00	0.00	50.99	108.46	2.00	0.00	1.00	0.00
51.07	108.00	2.00	0.00	1.00	0.00	51.13	108.64	2.00	0.00	1.00	0.00
51.20	109.08	2.00	0.00	1.00	0.00	51.25	110.42	2.00	0.00	1.00	0.00
51.33	111.83	2.00	0.00	1.00	0.00	51.38	113.85	2.00	0.00	1.00	0.00
51.47	112.90	2.00	0.00	1.00	0.00	51.52	107.52	2.00	0.00	1.00	0.00
51.60	101.29	2.00	0.00	1.00	0.00	51.65	97.20	2.00	0.00	1.00	0.00
51.72	96.63	2.00	0.00	1.00	0.00	51.78	95.38	2.00	0.00	1.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
51.84	94.40	2.00	0.00	1.00	0.00	51.91	95.22	0.38	2.43	1.00	0.02
51.98	97.69	0.39	2.38	1.00	0.02	52.04	102.20	0.42	2.30	1.00	0.01
52.14	105.59	0.45	2.23	1.00	0.03	52.18	108.15	0.47	2.19	1.00	0.01
52.24	109.56	0.48	2.17	1.00	0.02	52.31	111.29	0.49	2.14	1.00	0.02
52.36	113.65	0.51	2.10	1.00	0.01	52.44	115.94	0.53	2.07	1.00	0.02
52.50	117.76	0.55	2.04	1.00	0.01	52.58	118.25	0.55	2.04	1.00	0.02
52.63	118.20	0.55	2.04	1.00	0.01	52.71	119.03	0.56	2.03	1.00	0.02
52.76	119.61	0.57	2.02	1.00	0.01	52.89	119.66	0.57	2.02	1.00	0.03
52.96	118.54	0.56	2.03	1.00	0.02	53.03	116.11	0.53	2.07	1.00	0.02
53.11	117.15	0.54	2.05	1.00	0.02	53.17	131.61	0.69	1.66	1.00	0.01
53.24	148.67	0.91	0.87	1.00	0.01	53.31	159.84	1.09	0.41	1.00	0.00
53.35	159.17	1.08	0.41	1.00	0.00	53.44	157.46	1.05	0.41	1.00	0.00
53.48	158.63	1.07	0.41	1.00	0.00	53.55	163.79	1.16	0.29	1.00	0.00
53.61	167.93	1.24	0.28	1.00	0.00	53.68	166.93	2.00	0.00	1.00	0.00
53.74	157.46	2.00	0.00	1.00	0.00	53.83	146.48	2.00	0.00	1.00	0.00
53.89	137.90	2.00	0.00	1.00	0.00	53.95	134.24	2.00	0.00	1.00	0.00
54.05	133.44	2.00	0.00	1.00	0.00	54.08	133.43	2.00	0.00	1.00	0.00
54.14	133.38	2.00	0.00	1.00	0.00	54.23	133.26	2.00	0.00	1.00	0.00
54.27	133.05	2.00	0.00	1.00	0.00	54.37	133.26	2.00	0.00	1.00	0.00
54.41	134.12	0.73	1.62	1.00	0.01	54.49	135.91	2.00	0.00	1.00	0.00
54.54	139.42	2.00	0.00	1.00	0.00	54.62	143.21	2.00	0.00	1.00	0.00
54.67	147.37	2.00	0.00	1.00	0.00	54.73	150.39	2.00	0.00	1.00	0.00
54.81	152.84	2.00	0.00	1.00	0.00	54.86	154.45	2.00	0.00	1.00	0.00
54.94	155.15	2.00	0.00	1.00	0.00	54.99	154.86	2.00	0.00	1.00	0.00
55.08	153.54	2.00	0.00	1.00	0.00	55.12	150.05	2.00	0.00	1.00	0.00
55.22	141.65	2.00	0.00	1.00	0.00	55.30	132.01	2.00	0.00	1.00	0.00
55.36	123.77	2.00	0.00	1.00	0.00	55.39	119.61	2.00	0.00	1.00	0.00
55.48	114.97	2.00	0.00	1.00	0.00	55.53	112.89	2.00	0.00	1.00	0.00
55.62	110.71	2.00	0.00	1.00	0.00	55.66	108.52	2.00	0.00	1.00	0.00
55.72	106.21	2.00	0.00	1.00	0.00	55.80	103.80	2.00	0.00	1.00	0.00
55.85	101.24	2.00	0.00	1.00	0.00	55.91	98.46	2.00	0.00	1.00	0.00
55.99	95.35	2.00	0.00	1.00	0.00	56.04	91.72	2.00	0.00	1.00	0.00
56.12	88.69	2.00	0.00	1.00	0.00	56.17	86.52	2.00	0.00	1.00	0.00
56.24	85.67	2.00	0.00	1.00	0.00	56.30	85.65	2.00	0.00	1.00	0.00
56.39	87.84	2.00	0.00	1.00	0.00	56.44	89.19	2.00	0.00	1.00	0.00
56.52	91.81	2.00	0.00	1.00	0.00	56.57	104.28	2.00	0.00	1.00	0.00
56.66	119.45	2.00	0.00	1.00	0.00	56.71	141.13	2.00	0.00	1.00	0.00
56.78	156.24	2.00	0.00	1.00	0.00	56.83	158.29	2.00	0.00	1.00	0.00
56.91	153.53	1.01	0.59	1.00	0.01	56.96	153.44	1.01	0.59	1.00	0.00
57.03	153.17	1.01	0.59	1.00	0.01	57.09	149.83	2.00	0.00	1.00	0.00
57.16	146.46	2.00	0.00	1.00	0.00	57.22	140.26	2.00	0.00	1.00	0.00
57.29	157.62	2.00	0.00	1.00	0.00	57.38	172.43	2.00	0.00	1.00	0.00
57.42	170.76	1.33	0.20	1.00	0.00	57.51	178.88	1.50	0.00	1.00	0.00
57.55	171.06	1.33	0.20	1.00	0.00	57.61	179.06	1.50	0.00	1.00	0.00
57.68	191.03	1.78	0.00	1.00	0.00	57.75	193.69	1.85	0.00	1.00	0.00
57.82	188.49	1.72	0.00	1.00	0.00	57.89	180.54	1.54	0.00	1.00	0.00
57.97	174.90	1.42	0.00	1.00	0.00	58.02	174.41	1.41	0.00	1.00	0.00
58.11	173.51	1.39	0.00	1.00	0.00	58.15	173.06	1.38	0.00	1.00	0.00



<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
58.24	168.44	1.29	0.20	1.00	0.00	58.29	165.09	1.22	0.29	1.00	0.00
58.36	167.05	1.26	0.20	1.00	0.00	58.42	175.75	1.44	0.00	1.00	0.00
58.47	183.00	1.60	0.00	1.00	0.00	58.55	178.40	1.50	0.00	1.00	0.00
58.60	170.72	1.34	0.20	1.00	0.00	58.66	168.17	1.29	0.20	1.00	0.00
58.74	166.43	2.00	0.00	1.00	0.00	58.82	160.33	2.00	0.00	1.00	0.00
58.87	150.09	2.00	0.00	1.00	0.00	58.96	142.65	2.00	0.00	1.00	0.00
59.00	137.13	2.00	0.00	1.00	0.00	59.06	132.88	2.00	0.00	1.00	0.00
59.14	129.17	0.69	1.71	1.00	0.02	59.19	126.43	0.66	1.76	1.00	0.01
59.27	125.73	0.65	1.78	1.00	0.02	59.35	126.81	0.67	1.75	1.00	0.02
59.41	128.11	0.68	1.73	1.00	0.01	59.45	128.92	0.69	1.71	1.00	0.01
59.52	127.98	0.68	1.73	1.00	0.02	59.59	126.44	0.66	1.76	1.00	0.01
59.67	126.14	0.66	1.77	1.00	0.02	59.72	127.29	0.67	1.75	1.00	0.01
59.79	129.74	0.70	1.70	1.00	0.02	59.85	133.22	0.74	1.64	1.00	0.01
59.92	136.25	0.78	1.29	1.00	0.01	59.98	138.29	0.81	1.27	1.00	0.01
60.05	138.59	2.00	0.00	1.00	0.00	60.12	137.45	2.00	0.00	1.00	0.00
60.22	136.18	2.00	0.00	1.00	0.00	60.25	135.17	2.00	0.00	1.00	0.00
60.31	135.13	2.00	0.00	1.00	0.00	60.38	136.86	2.00	0.00	1.00	0.00
60.47	140.33	2.00	0.00	1.00	0.00	60.52	145.13	2.00	0.00	1.00	0.00
60.58	149.47	2.00	0.00	1.00	0.00	60.64	152.45	2.00	0.00	1.00	0.00
60.70	152.59	2.00	0.00	1.00	0.00	60.79	150.53	2.00	0.00	1.00	0.00
60.84	146.42	2.00	0.00	1.00	0.00	60.90	141.06	2.00	0.00	1.00	0.00
60.98	134.69	2.00	0.00	1.00	0.00	61.06	129.65	2.00	0.00	1.00	0.00
61.10	126.03	2.00	0.00	1.00	0.00	61.17	124.08	2.00	0.00	1.00	0.00
61.24	122.56	2.00	0.00	1.00	0.00	61.30	122.10	2.00	0.00	1.00	0.00
61.37	122.34	2.00	0.00	1.00	0.00	61.43	123.13	2.00	0.00	1.00	0.00
61.49	124.57	2.00	0.00	1.00	0.00	61.57	126.43	2.00	0.00	1.00	0.00
61.64	129.33	2.00	0.00	1.00	0.00	61.70	132.48	2.00	0.00	1.00	0.00
61.76	137.61	2.00	0.00	1.00	0.00	61.84	143.85	2.00	0.00	1.00	0.00
61.89	152.96	2.00	0.00	1.00	0.00	61.97	162.11	2.00	0.00	1.00	0.00
62.01	174.01	2.00	0.00	1.00	0.00	62.11	184.77	2.00	0.00	1.00	0.00
62.14	197.18	2.00	0.00	1.00	0.00	62.20	208.08	2.00	0.00	1.00	0.00
62.29	217.79	2.00	0.00	1.00	0.00	62.35	221.51	2.00	0.00	1.00	0.00
62.41	218.06	2.00	0.00	1.00	0.00	62.48	209.26	2.00	0.00	1.00	0.00
62.55	198.67	2.00	0.00	1.00	0.00	62.61	188.33	2.00	0.00	1.00	0.00
62.69	179.83	2.00	0.00	1.00	0.00	62.73	168.99	2.00	0.00	1.00	0.00
62.82	152.96	2.00	0.00	1.00	0.00	62.87	138.10	2.00	0.00	1.00	0.00
62.95	126.80	2.00	0.00	1.00	0.00	63.00	120.74	2.00	0.00	1.00	0.00
63.07	116.46	2.00	0.00	1.00	0.00	63.13	116.45	2.00	0.00	1.00	0.00
63.22	118.04	2.00	0.00	1.00	0.00	63.27	120.11	2.00	0.00	1.00	0.00
63.35	120.77	2.00	0.00	1.00	0.00	63.40	121.89	2.00	0.00	1.00	0.00
63.45	122.78	2.00	0.00	1.00	0.00	63.53	122.82	2.00	0.00	1.00	0.00
63.59	117.57	2.00	0.00	1.00	0.00	63.66	115.22	2.00	0.00	1.00	0.00
63.72	116.10	2.00	0.00	1.00	0.00	63.81	115.88	2.00	0.00	1.00	0.00
63.85	116.26	2.00	0.00	1.00	0.00	63.94	125.11	2.00	0.00	1.00	0.00
63.99	130.47	2.00	0.00	1.00	0.00	64.04	133.97	2.00	0.00	1.00	0.00
64.12	136.57	2.00	0.00	1.00	0.00	64.18	140.41	2.00	0.00	1.00	0.00
64.25	144.91	2.00	0.00	1.00	0.00	64.32	148.55	2.00	0.00	1.00	0.00
64.39	150.32	2.00	0.00	1.00	0.00	64.44	148.33	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
64.51	142.86	2.00	0.00	1.00	0.00	64.58	135.48	2.00	0.00	1.00	0.00
64.66	129.11	2.00	0.00	1.00	0.00	64.72	126.72	2.00	0.00	1.00	0.00
64.79	124.16	2.00	0.00	1.00	0.00	64.88	121.75	2.00	0.00	1.00	0.00
64.92	117.83	2.00	0.00	1.00	0.00	64.97	113.82	2.00	0.00	1.00	0.00
65.06	108.87	2.00	0.00	1.00	0.00	65.11	102.63	2.00	0.00	1.00	0.00
65.19	98.81	2.00	0.00	1.00	0.00	65.24	97.40	2.00	0.00	1.00	0.00
65.32	98.85	2.00	0.00	1.00	0.00	65.37	100.81	2.00	0.00	1.00	0.00
65.44	106.60	2.00	0.00	1.00	0.00	65.51	114.50	2.00	0.00	1.00	0.00
65.55	123.39	2.00	0.00	1.00	0.00	65.64	130.35	2.00	0.00	1.00	0.00
65.69	136.91	2.00	0.00	1.00	0.00	65.77	146.56	2.00	0.00	1.00	0.00
65.82	164.16	2.00	0.00	1.00	0.00	65.89	183.63	2.00	0.00	1.00	0.00
65.96	193.64	2.00	0.00	1.00	0.00	66.03	194.71	2.00	0.00	1.00	0.00
66.09	195.99	2.00	0.00	1.00	0.00	66.18	202.00	2.00	0.00	1.00	0.00
66.22	206.97	2.00	0.00	1.00	0.00	66.28	210.33	2.00	0.00	1.00	0.00
66.34	207.63	2.00	0.00	1.00	0.00	66.41	199.07	2.00	0.00	1.00	0.00
66.50	185.84	2.00	0.00	1.00	0.00	66.54	174.17	2.00	0.00	1.00	0.00
66.60	166.87	2.00	0.00	1.00	0.00	66.68	164.35	2.00	0.00	1.00	0.00
66.74	164.85	2.00	0.00	1.00	0.00	66.80	164.48	2.00	0.00	1.00	0.00
66.90	161.45	2.00	0.00	1.00	0.00	66.94	157.90	2.00	0.00	1.00	0.00
67.00	157.38	2.00	0.00	1.00	0.00	67.08	157.49	2.00	0.00	1.00	0.00
67.13	160.14	2.00	0.00	1.00	0.00	67.20	162.22	2.00	0.00	1.00	0.00
67.28	163.57	2.00	0.00	1.00	0.00	67.34	163.66	2.00	0.00	1.00	0.00
67.39	164.37	2.00	0.00	1.00	0.00	67.46	166.45	2.00	0.00	1.00	0.00
67.53	169.83	2.00	0.00	1.00	0.00	67.60	176.15	2.00	0.00	1.00	0.00
67.66	183.87	2.00	0.00	1.00	0.00	67.75	190.72	2.00	0.00	1.00	0.00
67.78	182.83	2.00	0.00	1.00	0.00	67.88	182.86	2.00	0.00	1.00	0.00
67.92	175.72	2.00	0.00	1.00	0.00	68.00	163.40	2.00	0.00	1.00	0.00
68.07	148.96	2.00	0.00	1.00	0.00	68.12	137.32	2.00	0.00	1.00	0.00
68.18	127.52	2.00	0.00	1.00	0.00	68.24	119.86	2.00	0.00	1.00	0.00
68.31	114.19	2.00	0.00	1.00	0.00	68.37	110.93	2.00	0.00	1.00	0.00
68.47	109.14	2.00	0.00	1.00	0.00	68.51	108.30	2.00	0.00	1.00	0.00
68.58	107.92	2.00	0.00	1.00	0.00	68.65	107.72	2.00	0.00	1.00	0.00
68.73	108.05	2.00	0.00	1.00	0.00	68.78	108.89	2.00	0.00	1.00	0.00
68.85	109.85	2.00	0.00	1.00	0.00	68.92	110.49	2.00	0.00	1.00	0.00
68.97	110.06	2.00	0.00	1.00	0.00	69.05	108.80	2.00	0.00	1.00	0.00
69.15	107.51	2.00	0.00	1.00	0.00	69.17	106.61	2.00	0.00	1.00	0.00
69.23	107.56	2.00	0.00	1.00	0.00	69.32	109.82	2.00	0.00	1.00	0.00
69.36	114.19	2.00	0.00	1.00	0.00	69.45	120.06	2.00	0.00	1.00	0.00
69.50	124.57	2.00	0.00	1.00	0.00	69.56	128.43	2.00	0.00	1.00	0.00
69.63	130.26	2.00	0.00	1.00	0.00	69.71	132.41	2.00	0.00	1.00	0.00
69.75	134.13	2.00	0.00	1.00	0.00	69.85	134.99	2.00	0.00	1.00	0.00
69.90	135.71	2.00	0.00	1.00	0.00	69.96	136.97	2.00	0.00	1.00	0.00
70.02	138.97	2.00	0.00	1.00	0.00	70.08	140.55	2.00	0.00	1.00	0.00
70.16	140.52	2.00	0.00	1.00	0.00	70.22	140.52	2.00	0.00	1.00	0.00
70.30	141.02	2.00	0.00	1.00	0.00	70.34	142.46	2.00	0.00	1.00	0.00
70.41	142.47	2.00	0.00	1.00	0.00	70.48	142.48	2.00	0.00	1.00	0.00
70.56	141.00	2.00	0.00	1.00	0.00	70.61	139.78	2.00	0.00	1.00	0.00
70.68	138.31	2.00	0.00	1.00	0.00	70.75	138.85	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
70.82	141.42	2.00	0.00	1.00	0.00	70.87	149.22	2.00	0.00	1.00	0.00
70.95	160.22	2.00	0.00	1.00	0.00	71.01	170.61	2.00	0.00	1.00	0.00
71.08	175.80	2.00	0.00	1.00	0.00	71.14	173.25	2.00	0.00	1.00	0.00
71.20	169.97	2.00	0.00	1.00	0.00	71.27	166.62	2.00	0.00	1.00	0.00
71.33	166.25	2.00	0.00	1.00	0.00	71.40	162.38	2.00	0.00	1.00	0.00
71.47	157.78	2.00	0.00	1.00	0.00	71.53	151.47	2.00	0.00	1.00	0.00
71.62	148.01	2.00	0.00	1.00	0.00	71.66	150.63	2.00	0.00	1.00	0.00
71.74	159.05	2.00	0.00	1.00	0.00	71.80	172.19	2.00	0.00	1.00	0.00
71.85	185.32	2.00	0.00	1.00	0.00	71.92	195.72	2.00	0.00	1.00	0.00
72.01	202.26	2.00	0.00	1.00	0.00	72.05	206.16	2.00	0.00	1.00	0.00
72.14	208.45	2.00	0.00	1.00	0.00	72.19	207.13	2.00	0.00	1.00	0.00
72.24	200.03	2.00	0.00	1.00	0.00	72.32	194.15	2.00	0.00	1.00	0.00
72.38	190.23	2.00	0.00	1.00	0.00	72.46	187.76	2.00	0.00	1.00	0.00
72.51	179.77	2.00	0.00	1.00	0.00	72.59	169.28	2.00	0.00	1.00	0.00
72.67	160.18	2.00	0.00	1.00	0.00	72.72	154.88	2.00	0.00	1.00	0.00
72.81	152.25	2.00	0.00	1.00	0.00	72.85	149.60	2.00	0.00	1.00	0.00
72.93	148.22	2.00	0.00	1.00	0.00	72.99	147.52	2.00	0.00	1.00	0.00
73.03	148.53	2.00	0.00	1.00	0.00	73.12	150.77	2.00	0.00	1.00	0.00
73.17	152.89	2.00	0.00	1.00	0.00	73.24	153.01	2.00	0.00	1.00	0.00
73.31	148.66	2.00	0.00	1.00	0.00	73.39	142.45	2.00	0.00	1.00	0.00
73.44	137.36	2.00	0.00	1.00	0.00	73.49	132.63	2.00	0.00	1.00	0.00
73.57	127.66	2.00	0.00	1.00	0.00	73.63	120.24	2.00	0.00	1.00	0.00
73.71	115.91	2.00	0.00	1.00	0.00	73.77	113.57	2.00	0.00	1.00	0.00
73.85	112.49	2.00	0.00	1.00	0.00	73.91	111.35	2.00	0.00	1.00	0.00
73.99	110.46	2.00	0.00	1.00	0.00	74.04	110.96	2.00	0.00	1.00	0.00
74.09	113.27	2.00	0.00	1.00	0.00	74.17	116.04	2.00	0.00	1.00	0.00
74.22	119.23	2.00	0.00	1.00	0.00	74.28	121.26	2.00	0.00	1.00	0.00
74.35	122.65	2.00	0.00	1.00	0.00	74.43	123.04	2.00	0.00	1.00	0.00
74.49	123.40	2.00	0.00	1.00	0.00	74.58	124.23	2.00	0.00	1.00	0.00
74.62	125.73	2.00	0.00	1.00	0.00	74.68	127.21	2.00	0.00	1.00	0.00
74.75	129.02	2.00	0.00	1.00	0.00	74.84	131.07	2.00	0.00	1.00	0.00
74.89	133.80	2.00	0.00	1.00	0.00	74.94	136.85	2.00	0.00	1.00	0.00
75.03	139.79	2.00	0.00	1.00	0.00	75.07	142.26	2.00	0.00	1.00	0.00
75.14	143.14	2.00	0.00	1.00	0.00	75.20	142.99	2.00	0.00	1.00	0.00
75.29	142.20	2.00	0.00	1.00	0.00	75.34	141.69	2.00	0.00	1.00	0.00
75.40	141.45	2.00	0.00	1.00	0.00	75.47	141.28	2.00	0.00	1.00	0.00
75.53	141.84	2.00	0.00	1.00	0.00	75.60	142.85	2.00	0.00	1.00	0.00
75.70	143.78	2.00	0.00	1.00	0.00	75.74	143.92	2.00	0.00	1.00	0.00
75.81	143.03	2.00	0.00	1.00	0.00	75.86	140.72	2.00	0.00	1.00	0.00
75.93	137.39	2.00	0.00	1.00	0.00	76.01	135.19	2.00	0.00	1.00	0.00
76.06	133.77	2.00	0.00	1.00	0.00	76.13	134.35	2.00	0.00	1.00	0.00
76.18	133.54	2.00	0.00	1.00	0.00	76.25	136.14	2.00	0.00	1.00	0.00
76.33	138.35	2.00	0.00	1.00	0.00	76.40	141.97	2.00	0.00	1.00	0.00
76.47	143.15	2.00	0.00	1.00	0.00	76.51	145.14	2.00	0.00	1.00	0.00
76.60	147.03	2.00	0.00	1.00	0.00	76.64	150.45	2.00	0.00	1.00	0.00
76.71	154.97	2.00	0.00	1.00	0.00	76.78	160.38	2.00	0.00	1.00	0.00
76.86	164.36	2.00	0.00	1.00	0.00	76.92	166.46	2.00	0.00	1.00	0.00
77.00	166.54	2.00	0.00	1.00	0.00	77.04	164.65	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
77.13	161.25	2.00	0.00	1.00	0.00	77.18	157.66	2.00	0.00	1.00	0.00
77.23	155.89	2.00	0.00	1.00	0.00	77.32	155.68	2.00	0.00	1.00	0.00
77.36	156.41	2.00	0.00	1.00	0.00	77.45	152.64	2.00	0.00	1.00	0.00
77.50	142.79	2.00	0.00	1.00	0.00	77.56	144.11	2.00	0.00	1.00	0.00
77.63	152.57	2.00	0.00	1.00	0.00	77.71	165.96	2.00	0.00	1.00	0.00
77.77	169.37	2.00	0.00	1.00	0.00	77.82	172.06	2.00	0.00	1.00	0.00
77.89	171.68	2.00	0.00	1.00	0.00	77.99	171.30	2.00	0.00	1.00	0.00
78.03	167.89	2.00	0.00	1.00	0.00	78.08	165.71	2.00	0.00	1.00	0.00
78.16	160.40	2.00	0.00	1.00	0.00	78.22	151.81	2.00	0.00	1.00	0.00
78.30	143.16	2.00	0.00	1.00	0.00	78.37	135.70	2.00	0.00	1.00	0.00
78.43	131.86	2.00	0.00	1.00	0.00	78.48	131.05	2.00	0.00	1.00	0.00
78.56	131.42	2.00	0.00	1.00	0.00	78.62	133.45	2.00	0.00	1.00	0.00
78.70	134.32	2.00	0.00	1.00	0.00	78.75	135.43	2.00	0.00	1.00	0.00
78.82	136.59	2.00	0.00	1.00	0.00	78.88	138.80	2.00	0.00	1.00	0.00
78.97	141.09	2.00	0.00	1.00	0.00	79.02	143.24	2.00	0.00	1.00	0.00
79.07	144.19	2.00	0.00	1.00	0.00	79.14	143.46	2.00	0.00	1.00	0.00
79.22	140.15	2.00	0.00	1.00	0.00	79.29	135.14	2.00	0.00	1.00	0.00
79.33	132.40	2.00	0.00	1.00	0.00	79.42	132.12	2.00	0.00	1.00	0.00
79.47	133.58	2.00	0.00	1.00	0.00	79.53	134.44	2.00	0.00	1.00	0.00
79.60	136.19	2.00	0.00	1.00	0.00	79.69	138.42	2.00	0.00	1.00	0.00
79.74	139.84	2.00	0.00	1.00	0.00	79.79	139.07	2.00	0.00	1.00	0.00
79.87	136.75	2.00	0.00	1.00	0.00	79.95	134.62	2.00	0.00	1.00	0.00
80.00	134.01	2.00	0.00	1.00	0.00	80.10	134.07	2.00	0.00	1.00	0.00
80.13	133.73	2.00	0.00	1.00	0.00	80.20	133.22	2.00	0.00	1.00	0.00
80.27	128.56	2.00	0.00	1.00	0.00	80.32	128.83	2.00	0.00	1.00	0.00
80.41	128.57	2.00	0.00	1.00	0.00	80.45	128.71	2.00	0.00	1.00	0.00
80.54	129.99	2.00	0.00	1.00	0.00	80.59	132.85	2.00	0.00	1.00	0.00
80.67	136.29	2.00	0.00	1.00	0.00	80.73	141.89	2.00	0.00	1.00	0.00
80.79	155.23	2.00	0.00	1.00	0.00	80.84	163.69	2.00	0.00	1.00	0.00
80.91	170.63	2.00	0.00	1.00	0.00	80.98	174.39	2.00	0.00	1.00	0.00
81.06	175.21	2.00	0.00	1.00	0.00	81.11	175.32	2.00	0.00	1.00	0.00
81.18	165.06	2.00	0.00	1.00	0.00	81.26	160.91	2.00	0.00	1.00	0.00
81.31	155.03	2.00	0.00	1.00	0.00	81.39	151.37	2.00	0.00	1.00	0.00
81.44	148.00	2.00	0.00	1.00	0.00	81.53	144.72	2.00	0.00	1.00	0.00
81.57	147.89	2.00	0.00	1.00	0.00	81.66	145.79	2.00	0.00	1.00	0.00
81.70	143.12	2.00	0.00	1.00	0.00	81.76	140.15	2.00	0.00	1.00	0.00
81.84	136.31	2.00	0.00	1.00	0.00	81.92	132.94	2.00	0.00	1.00	0.00
81.96	129.87	2.00	0.00	1.00	0.00	82.06	127.64	2.00	0.00	1.00	0.00
82.11	120.50	2.00	0.00	1.00	0.00	82.16	118.64	2.00	0.00	1.00	0.00
82.22	116.57	2.00	0.00	1.00	0.00	82.29	114.62	2.00	0.00	1.00	0.00
82.38	113.14	2.00	0.00	1.00	0.00	82.42	112.05	2.00	0.00	1.00	0.00
82.51	111.03	2.00	0.00	1.00	0.00	82.55	109.40	2.00	0.00	1.00	0.00
82.62	106.75	2.00	0.00	1.00	0.00	82.69	101.26	2.00	0.00	1.00	0.00
82.78	96.76	2.00	0.00	1.00	0.00	82.81	98.49	2.00	0.00	1.00	0.00
82.92	100.46	2.00	0.00	1.00	0.00	82.96	102.74	2.00	0.00	1.00	0.00
83.04	104.97	2.00	0.00	1.00	0.00	83.08	107.76	2.00	0.00	1.00	0.00
83.14	110.92	2.00	0.00	1.00	0.00	83.23	113.22	2.00	0.00	1.00	0.00
83.28	115.36	2.00	0.00	1.00	0.00	83.35	117.49	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
83.40	121.43	2.00	0.00	1.00	0.00	83.49	125.45	2.00	0.00	1.00	0.00
83.55	127.81	2.00	0.00	1.00	0.00	83.64	127.33	2.00	0.00	1.00	0.00
83.69	126.29	2.00	0.00	1.00	0.00	83.73	124.97	2.00	0.00	1.00	0.00
83.82	122.80	2.00	0.00	1.00	0.00	83.86	119.42	2.00	0.00	1.00	0.00
83.95	116.28	2.00	0.00	1.00	0.00	84.00	110.65	2.00	0.00	1.00	0.00
84.09	111.59	2.00	0.00	1.00	0.00	84.13	115.67	2.00	0.00	1.00	0.00
84.20	125.05	2.00	0.00	1.00	0.00	84.26	151.38	2.00	0.00	1.00	0.00
84.35	175.26	2.00	0.00	1.00	0.00	84.40	191.30	2.00	0.00	1.00	0.00
84.45	206.60	2.00	0.00	1.00	0.00	84.54	225.26	2.00	0.00	1.00	0.00
84.59	249.69	2.00	0.00	1.00	0.00	84.67	267.26	2.00	0.00	1.00	0.00
84.71	262.86	2.00	0.00	1.00	0.00	84.80	241.24	2.00	0.00	1.00	0.00
84.85	213.97	2.00	0.00	1.00	0.00	84.93	205.35	2.00	0.00	1.00	0.00
84.99	206.63	2.00	0.00	1.00	0.00	85.07	206.73	2.00	0.00	1.00	0.00
85.12	206.67	2.00	0.00	1.00	0.00	85.18	206.67	2.00	0.00	1.00	0.00
85.25	204.02	2.00	0.00	1.00	0.00	85.31	200.91	2.00	0.00	1.00	0.00
85.37	200.47	2.00	0.00	1.00	0.00	85.43	202.12	2.00	0.00	1.00	0.00
85.52	203.42	2.00	0.00	1.00	0.00	85.56	203.85	2.00	0.00	1.00	0.00
85.66	204.50	2.00	0.00	1.00	0.00	85.70	205.41	2.00	0.00	1.00	0.00
85.77	195.42	2.00	0.00	1.00	0.00	85.86	195.03	2.00	0.00	1.00	0.00
85.90	193.22	2.00	0.00	1.00	0.00	85.97	189.90	2.00	0.00	1.00	0.00
86.03	185.09	2.00	0.00	1.00	0.00	86.09	180.73	2.00	0.00	1.00	0.00
86.17	178.77	2.00	0.00	1.00	0.00	86.24	178.47	2.00	0.00	1.00	0.00
86.31	180.08	2.00	0.00	1.00	0.00	86.39	191.25	2.00	0.00	1.00	0.00
86.44	194.69	2.00	0.00	1.00	0.00	86.49	198.52	2.00	0.00	1.00	0.00
86.58	201.87	2.00	0.00	1.00	0.00	86.62	206.19	2.00	0.00	1.00	0.00
86.69	210.72	2.00	0.00	1.00	0.00	86.76	207.35	2.00	0.00	1.00	0.00
86.84	202.26	2.00	0.00	1.00	0.00	86.89	200.27	2.00	0.00	1.00	0.00
86.98	206.77	2.00	0.00	1.00	0.00	87.03	214.16	2.00	0.00	1.00	0.00
87.11	215.97	2.00	0.00	1.00	0.00	87.16	217.32	2.00	0.00	1.00	0.00
87.21	219.31	2.00	0.00	1.00	0.00	87.28	222.46	2.00	0.00	1.00	0.00
87.35	225.48	2.00	0.00	1.00	0.00	87.43	227.59	2.00	0.00	1.00	0.00
87.48	230.82	2.00	0.00	1.00	0.00	87.55	233.88	2.00	0.00	1.00	0.00
87.62	233.53	2.00	0.00	1.00	0.00	87.67	230.16	2.00	0.00	1.00	0.00
87.75	225.27	2.00	0.00	1.00	0.00	87.80	225.58	2.00	0.00	1.00	0.00
87.86	228.31	2.00	0.00	1.00	0.00	87.93	232.62	2.00	0.00	1.00	0.00
88.02	234.83	2.00	0.00	1.00	0.00	88.07	233.20	2.00	0.00	1.00	0.00
88.16	227.52	2.00	0.00	1.00	0.00	88.19	213.43	2.00	0.00	1.00	0.00
88.25	194.01	2.00	0.00	1.00	0.00	88.34	177.99	2.00	0.00	1.00	0.00
88.39	170.68	2.00	0.00	1.00	0.00	88.46	170.71	2.00	0.00	1.00	0.00
88.55	173.18	2.00	0.00	1.00	0.00	88.60	172.95	2.00	0.00	1.00	0.00
88.66	170.83	2.00	0.00	1.00	0.00	88.72	170.19	2.00	0.00	1.00	0.00
88.79	176.25	2.00	0.00	1.00	0.00	88.87	188.42	2.00	0.00	1.00	0.00
88.91	207.47	2.00	0.00	1.00	0.00	89.01	221.64	2.00	0.00	1.00	0.00
89.06	232.76	2.00	0.00	1.00	0.00	89.14	236.71	2.00	0.00	1.00	0.00
89.19	242.47	2.00	0.00	1.00	0.00	89.28	247.34	2.00	0.00	1.00	0.00
89.32	248.49	2.00	0.00	1.00	0.00	89.39	244.94	2.00	0.00	1.00	0.00
89.44	238.87	2.00	0.00	1.00	0.00	89.53	219.96	2.00	0.00	1.00	0.00
89.57	215.66	2.00	0.00	1.00	0.00	89.64	209.78	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
89.71	201.58	2.00	0.00	1.00	0.00	89.77	194.39	2.00	0.00	1.00	0.00
89.84	191.55	2.00	0.00	1.00	0.00	89.92	190.53	2.00	0.00	1.00	0.00
89.98	191.08	2.00	0.00	1.00	0.00	90.05	193.68	2.00	0.00	1.00	0.00
90.11	198.67	2.00	0.00	1.00	0.00	90.17	198.74	2.00	0.00	1.00	0.00
90.24	192.19	2.00	0.00	1.00	0.00	90.30	182.45	2.00	0.00	1.00	0.00
90.36	173.88	2.00	0.00	1.00	0.00	90.42	167.14	2.00	0.00	1.00	0.00
90.50	161.06	2.00	0.00	1.00	0.00	90.56	155.78	2.00	0.00	1.00	0.00
90.64	151.57	2.00	0.00	1.00	0.00	90.69	147.79	2.00	0.00	1.00	0.00
90.76	146.14	2.00	0.00	1.00	0.00	90.82	144.91	2.00	0.00	1.00	0.00
90.91	144.60	2.00	0.00	1.00	0.00	90.96	144.11	2.00	0.00	1.00	0.00
91.03	143.70	2.00	0.00	1.00	0.00	91.09	142.68	2.00	0.00	1.00	0.00
91.15	141.70	2.00	0.00	1.00	0.00	91.23	140.46	2.00	0.00	1.00	0.00
91.31	139.25	2.00	0.00	1.00	0.00	91.37	138.84	2.00	0.00	1.00	0.00
91.41	140.64	2.00	0.00	1.00	0.00	91.49	143.31	2.00	0.00	1.00	0.00
91.54	148.08	2.00	0.00	1.00	0.00	91.63	152.68	2.00	0.00	1.00	0.00
91.67	155.60	2.00	0.00	1.00	0.00	91.74	154.75	2.00	0.00	1.00	0.00
91.81	155.94	2.00	0.00	1.00	0.00	91.90	162.31	2.00	0.00	1.00	0.00
91.94	169.39	2.00	0.00	1.00	0.00	92.00	174.66	2.00	0.00	1.00	0.00
92.08	172.80	2.00	0.00	1.00	0.00	92.14	166.85	2.00	0.00	1.00	0.00
92.19	153.14	2.00	0.00	1.00	0.00	92.26	139.66	2.00	0.00	1.00	0.00
92.35	129.92	2.00	0.00	1.00	0.00	92.40	124.78	2.00	0.00	1.00	0.00
92.47	123.58	2.00	0.00	1.00	0.00	92.53	122.60	2.00	0.00	1.00	0.00
92.59	126.88	2.00	0.00	1.00	0.00	92.66	135.75	2.00	0.00	1.00	0.00
92.73	149.60	2.00	0.00	1.00	0.00	92.80	159.49	2.00	0.00	1.00	0.00
92.88	161.09	2.00	0.00	1.00	0.00	92.93	158.05	2.00	0.00	1.00	0.00
92.98	153.97	2.00	0.00	1.00	0.00	93.07	150.08	2.00	0.00	1.00	0.00
93.12	141.89	2.00	0.00	1.00	0.00	93.20	132.06	2.00	0.00	1.00	0.00
93.25	121.61	2.00	0.00	1.00	0.00	93.32	119.05	2.00	0.00	1.00	0.00
93.39	116.30	2.00	0.00	1.00	0.00	93.45	119.40	2.00	0.00	1.00	0.00
93.52	123.47	2.00	0.00	1.00	0.00	93.58	137.53	2.00	0.00	1.00	0.00
93.65	150.02	2.00	0.00	1.00	0.00	93.73	157.53	2.00	0.00	1.00	0.00
93.78	158.24	2.00	0.00	1.00	0.00	93.88	157.88	2.00	0.00	1.00	0.00
93.92	161.01	2.00	0.00	1.00	0.00	94.02	164.18	2.00	0.00	1.00	0.00
94.04	164.64	2.00	0.00	1.00	0.00	94.10	161.71	2.00	0.00	1.00	0.00
94.19	158.67	2.00	0.00	1.00	0.00	94.23	156.98	2.00	0.00	1.00	0.00
94.32	155.35	2.00	0.00	1.00	0.00	94.37	153.45	2.00	0.00	1.00	0.00
94.45	151.54	2.00	0.00	1.00	0.00	94.50	149.87	2.00	0.00	1.00	0.00
94.58	148.68	2.00	0.00	1.00	0.00	94.64	148.36	2.00	0.00	1.00	0.00
94.69	148.20	2.00	0.00	1.00	0.00	94.77	147.05	2.00	0.00	1.00	0.00
94.83	145.46	2.00	0.00	1.00	0.00	94.90	144.44	2.00	0.00	1.00	0.00
94.95	143.22	2.00	0.00	1.00	0.00	95.02	138.00	2.00	0.00	1.00	0.00
95.09	131.77	2.00	0.00	1.00	0.00	95.15	130.78	2.00	0.00	1.00	0.00
95.21	138.85	2.00	0.00	1.00	0.00	95.28	140.52	2.00	0.00	1.00	0.00
95.34	141.60	2.00	0.00	1.00	0.00	95.43	142.12	2.00	0.00	1.00	0.00
95.48	145.11	2.00	0.00	1.00	0.00	95.56	144.15	2.00	0.00	1.00	0.00
95.61	140.08	2.00	0.00	1.00	0.00	95.67	135.12	2.00	0.00	1.00	0.00
95.74	133.26	2.00	0.00	1.00	0.00	95.84	133.99	2.00	0.00	1.00	0.00
95.87	132.81	2.00	0.00	1.00	0.00	95.94	130.90	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
96.01	129.80	2.00	0.00	1.00	0.00	96.07	128.70	2.00	0.00	1.00	0.00
96.13	128.02	2.00	0.00	1.00	0.00	96.19	126.16	2.00	0.00	1.00	0.00
96.29	122.87	2.00	0.00	1.00	0.00	96.33	117.37	2.00	0.00	1.00	0.00
96.42	112.70	2.00	0.00	1.00	0.00	96.46	109.51	2.00	0.00	1.00	0.00
96.56	110.19	2.00	0.00	1.00	0.00	96.60	110.77	2.00	0.00	1.00	0.00
96.67	110.95	2.00	0.00	1.00	0.00	96.72	110.30	2.00	0.00	1.00	0.00
96.79	110.29	2.00	0.00	1.00	0.00	96.85	111.21	2.00	0.00	1.00	0.00
96.94	112.11	2.00	0.00	1.00	0.00	96.98	113.11	2.00	0.00	1.00	0.00
97.07	114.82	2.00	0.00	1.00	0.00	97.11	117.15	2.00	0.00	1.00	0.00
97.20	118.64	2.00	0.00	1.00	0.00	97.25	118.58	2.00	0.00	1.00	0.00
97.34	117.38	2.00	0.00	1.00	0.00	97.42	113.73	2.00	0.00	1.00	0.00
97.47	108.44	2.00	0.00	1.00	0.00	97.52	99.41	2.00	0.00	1.00	0.00
97.61	85.85	2.00	0.00	1.00	0.00	97.66	84.84	2.00	0.00	1.00	0.00
97.76	83.82	2.00	0.00	1.00	0.00	97.79	80.97	2.00	0.00	1.00	0.00
97.83	91.29	2.00	0.00	1.00	0.00	97.91	91.81	2.00	0.00	1.00	0.00
97.98	94.49	2.00	0.00	1.00	0.00	98.04	99.93	2.00	0.00	1.00	0.00
98.11	104.35	2.00	0.00	1.00	0.00	98.18	108.74	2.00	0.00	1.00	0.00
98.23	112.36	2.00	0.00	1.00	0.00	98.32	114.75	2.00	0.00	1.00	0.00
98.36	116.57	2.00	0.00	1.00	0.00	98.45	117.37	2.00	0.00	1.00	0.00
98.50	117.48	2.00	0.00	1.00	0.00	98.56	117.47	2.00	0.00	1.00	0.00
98.63	118.37	2.00	0.00	1.00	0.00	98.71	120.75	2.00	0.00	1.00	0.00
98.77	124.09	2.00	0.00	1.00	0.00	98.82	128.67	2.00	0.00	1.00	0.00
98.90	133.97	2.00	0.00	1.00	0.00	98.97	140.42	2.00	0.00	1.00	0.00
99.04	146.83	2.00	0.00	1.00	0.00	99.08	149.15	2.00	0.00	1.00	0.00
99.17	146.70	2.00	0.00	1.00	0.00	99.22	140.84	2.00	0.00	1.00	0.00
99.30	145.14	2.00	0.00	1.00	0.00	99.35	161.79	2.00	0.00	1.00	0.00
99.44	174.65	2.00	0.00	1.00	0.00	99.48	183.27	2.00	0.00	1.00	0.00
99.55	183.53	2.00	0.00	1.00	0.00	99.61	182.03	2.00	0.00	1.00	0.00
99.69	180.00	2.00	0.00	1.00	0.00	99.74	179.09	2.00	0.00	1.00	0.00
99.80	176.65	2.00	0.00	1.00	0.00	99.87	173.40	2.00	0.00	1.00	0.00
99.96	169.56	2.00	0.00	1.00	0.00	100.00	166.55	2.00	0.00	1.00	0.00
100.08	159.36	2.00	0.00	1.00	0.00	100.13	152.29	2.00	0.00	1.00	0.00
100.23	149.44	2.00	0.00	1.00	0.00	100.27	148.25	2.00	0.00	1.00	0.00
100.35	144.99	2.00	0.00	1.00	0.00	100.40	135.00	2.00	0.00	1.00	0.00
100.47	129.31	2.00	0.00	1.00	0.00	100.54	128.51	2.00	0.00	1.00	0.00
100.64	131.60	2.00	0.00	1.00	0.00	100.67	132.57	2.00	0.00	1.00	0.00
100.73	129.46	2.00	0.00	1.00	0.00	100.79	122.06	2.00	0.00	1.00	0.00
100.86	112.26	2.00	0.00	1.00	0.00	100.93	102.95	2.00	0.00	1.00	0.00
101.02	98.16	2.00	0.00	1.00	0.00	101.06	96.43	2.00	0.00	1.00	0.00
101.13	96.41	2.00	0.00	1.00	0.00	101.21	96.24	2.00	0.00	1.00	0.00
101.27	96.12	2.00	0.00	1.00	0.00	101.33	95.86	2.00	0.00	1.00	0.00
101.38	95.24	2.00	0.00	1.00	0.00	101.46	94.68	2.00	0.00	1.00	0.00
101.52	94.35	2.00	0.00	1.00	0.00	101.60	94.31	2.00	0.00	1.00	0.00
101.65	94.12	2.00	0.00	1.00	0.00	101.73	93.62	2.00	0.00	1.00	0.00
101.78	92.99	2.00	0.00	1.00	0.00	101.85	92.38	2.00	0.00	1.00	0.00
101.92	91.89	2.00	0.00	1.00	0.00	101.98	91.11	2.00	0.00	1.00	0.00
102.05	89.05	2.00	0.00	1.00	0.00	102.12	85.81	2.00	0.00	1.00	0.00
102.19	83.12	2.00	0.00	1.00	0.00	102.23	82.35	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
102.33	82.83	2.00	0.00	1.00	0.00	102.37	82.86	2.00	0.00	1.00	0.00
102.45	82.72	2.00	0.00	1.00	0.00	102.50	82.33	2.00	0.00	1.00	0.00
102.56	82.57	2.00	0.00	1.00	0.00	102.63	82.96	2.00	0.00	1.00	0.00
102.71	83.90	2.00	0.00	1.00	0.00	102.77	84.94	2.00	0.00	1.00	0.00
102.83	85.53	2.00	0.00	1.00	0.00	102.89	85.59	2.00	0.00	1.00	0.00
102.96	84.79	2.00	0.00	1.00	0.00	103.04	83.48	2.00	0.00	1.00	0.00
103.13	82.24	2.00	0.00	1.00	0.00	103.18	81.48	2.00	0.00	1.00	0.00
103.24	81.36	2.00	0.00	1.00	0.00	103.30	81.68	2.00	0.00	1.00	0.00
103.36	82.37	2.00	0.00	1.00	0.00	103.44	83.18	2.00	0.00	1.00	0.00
103.48	84.53	2.00	0.00	1.00	0.00	103.58	85.64	2.00	0.00	1.00	0.00
103.64	86.62	2.00	0.00	1.00	0.00	103.68	87.23	2.00	0.00	1.00	0.00
103.75	88.10	2.00	0.00	1.00	0.00	103.82	89.40	2.00	0.00	1.00	0.00
103.89	90.60	2.00	0.00	1.00	0.00	103.94	91.53	2.00	0.00	1.00	0.00
104.00	91.65	2.00	0.00	1.00	0.00	104.08	96.77	2.00	0.00	1.00	0.00
104.16	104.50	2.00	0.00	1.00	0.00	104.20	112.51	2.00	0.00	1.00	0.00
104.30	115.71	2.00	0.00	1.00	0.00	104.33	117.37	2.00	0.00	1.00	0.00
104.44	116.94	2.00	0.00	1.00	0.00	104.46	116.32	2.00	0.00	1.00	0.00
104.53	116.62	2.00	0.00	1.00	0.00	104.60	118.62	2.00	0.00	1.00	0.00
104.67	120.81	2.00	0.00	1.00	0.00	104.74	121.23	2.00	0.00	1.00	0.00
104.80	121.69	2.00	0.00	1.00	0.00	104.88	122.07	2.00	0.00	1.00	0.00
104.93	121.48	2.00	0.00	1.00	0.00	105.01	118.92	2.00	0.00	1.00	0.00
105.07	118.59	2.00	0.00	1.00	0.00	105.16	120.33	2.00	0.00	1.00	0.00
105.20	125.18	2.00	0.00	1.00	0.00	105.25	130.30	2.00	0.00	1.00	0.00
105.32	133.09	2.00	0.00	1.00	0.00	105.39	137.98	2.00	0.00	1.00	0.00
105.47	144.29	2.00	0.00	1.00	0.00	105.52	154.06	2.00	0.00	1.00	0.00
105.61	161.42	2.00	0.00	1.00	0.00	105.66	164.49	2.00	0.00	1.00	0.00
105.71	164.29	2.00	0.00	1.00	0.00	105.78	160.63	2.00	0.00	1.00	0.00
105.84	152.97	2.00	0.00	1.00	0.00	105.92	143.61	2.00	0.00	1.00	0.00
106.01	135.91	2.00	0.00	1.00	0.00	106.04	133.56	2.00	0.00	1.00	0.00
106.11	132.91	2.00	0.00	1.00	0.00	106.19	131.09	2.00	0.00	1.00	0.00
106.23	125.36	2.00	0.00	1.00	0.00	106.31	117.53	2.00	0.00	1.00	0.00
106.37	106.89	2.00	0.00	1.00	0.00	106.44	96.70	2.00	0.00	1.00	0.00
106.51	89.56	2.00	0.00	1.00	0.00	106.59	86.86	2.00	0.00	1.00	0.00
106.64	89.21	2.00	0.00	1.00	0.00	106.73	92.32	2.00	0.00	1.00	0.00
106.77	98.63	2.00	0.00	1.00	0.00	106.87	104.28	2.00	0.00	1.00	0.00
106.91	107.82	2.00	0.00	1.00	0.00	106.96	108.99	2.00	0.00	1.00	0.00
107.02	109.40	2.00	0.00	1.00	0.00	107.09	109.58	2.00	0.00	1.00	0.00
107.17	107.98	2.00	0.00	1.00	0.00	107.22	106.93	2.00	0.00	1.00	0.00
107.30	108.72	2.00	0.00	1.00	0.00	107.35	117.33	2.00	0.00	1.00	0.00
107.42	127.79	2.00	0.00	1.00	0.00	107.49	131.60	2.00	0.00	1.00	0.00
107.55	128.42	2.00	0.00	1.00	0.00	107.63	129.55	2.00	0.00	1.00	0.00
107.69	135.48	2.00	0.00	1.00	0.00	107.75	145.49	2.00	0.00	1.00	0.00
107.83	154.56	2.00	0.00	1.00	0.00	107.92	161.06	2.00	0.00	1.00	0.00
107.96	159.57	2.00	0.00	1.00	0.00	108.02	155.53	2.00	0.00	1.00	0.00
108.09	155.07	2.00	0.00	1.00	0.00	108.14	158.52	2.00	0.00	1.00	0.00
108.21	157.21	2.00	0.00	1.00	0.00	108.28	153.26	2.00	0.00	1.00	0.00
108.36	156.48	2.00	0.00	1.00	0.00	108.40	168.39	2.00	0.00	1.00	0.00
108.47	173.68	2.00	0.00	1.00	0.00	108.54	174.63	2.00	0.00	1.00	0.00



<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
108.60	171.39	2.00	0.00	1.00	0.00	108.67	163.20	2.00	0.00	1.00	0.00
108.73	155.26	2.00	0.00	1.00	0.00	108.81	151.55	2.00	0.00	1.00	0.00
108.87	156.17	2.00	0.00	1.00	0.00	108.95	160.35	2.00	0.00	1.00	0.00
109.00	163.58	2.00	0.00	1.00	0.00	109.06	163.17	2.00	0.00	1.00	0.00
109.14	162.75	2.00	0.00	1.00	0.00	109.19	161.05	2.00	0.00	1.00	0.00
109.25	159.89	2.00	0.00	1.00	0.00	109.33	162.95	2.00	0.00	1.00	0.00
109.39	164.64	2.00	0.00	1.00	0.00	109.46	162.93	2.00	0.00	1.00	0.00
109.52	161.11	2.00	0.00	1.00	0.00	109.58	168.22	2.00	0.00	1.00	0.00
109.65	178.33	2.00	0.00	1.00	0.00	109.71	173.27	2.00	0.00	1.00	0.00
109.78	162.08	2.00	0.00	1.00	0.00	109.87	150.64	2.00	0.00	1.00	0.00
109.91	147.13	2.00	0.00	1.00	0.00	110.00	145.92	2.00	0.00	1.00	0.00
110.04	147.29	2.00	0.00	1.00	0.00	110.14	146.87	2.00	0.00	1.00	0.00
110.18	143.80	2.00	0.00	1.00	0.00	110.24	135.58	2.00	0.00	1.00	0.00
110.31	128.67	2.00	0.00	1.00	0.00	110.40	122.78	2.00	0.00	1.00	0.00
110.45	116.75	2.00	0.00	1.00	0.00	110.50	113.09	2.00	0.00	1.00	0.00
110.58	113.23	2.00	0.00	1.00	0.00	110.63	115.91	2.00	0.00	1.00	0.00
110.72	117.99	2.00	0.00	1.00	0.00	110.78	117.33	2.00	0.00	1.00	0.00
110.83	115.25	2.00	0.00	1.00	0.00	110.90	111.65	2.00	0.00	1.00	0.00
111.00	108.52	2.00	0.00	1.00	0.00	111.04	105.70	2.00	0.00	1.00	0.00
111.11	102.75	2.00	0.00	1.00	0.00	111.18	99.70	2.00	0.00	1.00	0.00
111.23	96.95	2.00	0.00	1.00	0.00	111.29	95.55	2.00	0.00	1.00	0.00
111.36	95.12	2.00	0.00	1.00	0.00	111.42	94.31	2.00	0.00	1.00	0.00
111.49	93.01	2.00	0.00	1.00	0.00	111.57	91.61	2.00	0.00	1.00	0.00
111.62	91.29	2.00	0.00	1.00	0.00	111.72	91.44	2.00	0.00	1.00	0.00
111.76	91.17	2.00	0.00	1.00	0.00	111.82	89.88	2.00	0.00	1.00	0.00
111.89	89.05	2.00	0.00	1.00	0.00	111.95	90.20	2.00	0.00	1.00	0.00
112.03	93.01	2.00	0.00	1.00	0.00	112.09	96.94	2.00	0.00	1.00	0.00
112.15	101.92	2.00	0.00	1.00	0.00	112.23	109.19	2.00	0.00	1.00	0.00
112.30	116.15	2.00	0.00	1.00	0.00	112.34	123.87	2.00	0.00	1.00	0.00
112.42	131.14	2.00	0.00	1.00	0.00	112.48	143.70	2.00	0.00	1.00	0.00
112.56	154.71	2.00	0.00	1.00	0.00	112.60	161.18	2.00	0.00	1.00	0.00
112.67	160.72	2.00	0.00	1.00	0.00	112.74	159.04	2.00	0.00	1.00	0.00
112.83	158.40	2.00	0.00	1.00	0.00	112.87	158.18	2.00	0.00	1.00	0.00
112.94	154.83	2.00	0.00	1.00	0.00	113.01	150.69	2.00	0.00	1.00	0.00
113.06	150.77	2.00	0.00	1.00	0.00	113.15	154.58	2.00	0.00	1.00	0.00
113.23	159.30	2.00	0.00	1.00	0.00	113.28	160.05	2.00	0.00	1.00	0.00
113.33	156.46	2.00	0.00	1.00	0.00	113.41	154.17	2.00	0.00	1.00	0.00
113.45	142.64	2.00	0.00	1.00	0.00	113.54	134.79	2.00	0.00	1.00	0.00
113.59	126.62	2.00	0.00	1.00	0.00	113.66	127.60	2.00	0.00	1.00	0.00
113.72	126.38	2.00	0.00	1.00	0.00	113.80	124.80	2.00	0.00	1.00	0.00
113.85	119.82	2.00	0.00	1.00	0.00	113.95	115.00	2.00	0.00	1.00	0.00
113.98	110.19	2.00	0.00	1.00	0.00	114.06	113.75	2.00	0.00	1.00	0.00
114.12	136.81	2.00	0.00	1.00	0.00	114.21	156.68	2.00	0.00	1.00	0.00
114.25	156.21	2.00	0.00	1.00	0.00	114.32	142.55	2.00	0.00	1.00	0.00
114.37	143.55	2.00	0.00	1.00	0.00	114.45	151.77	2.00	0.00	1.00	0.00
114.51	164.65	2.00	0.00	1.00	0.00	114.58	168.90	2.00	0.00	1.00	0.00
114.64	168.81	2.00	0.00	1.00	0.00	114.71	171.31	2.00	0.00	1.00	0.00
114.77	173.04	2.00	0.00	1.00	0.00	114.84	173.83	2.00	0.00	1.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
114.90	166.51	2.00	0.00	1.00	0.00	114.98	164.23	2.00	0.00	1.00	0.00
115.03	157.23	2.00	0.00	1.00	0.00	115.12	148.03	2.00	0.00	1.00	0.00
115.16	131.83	2.00	0.00	1.00	0.00	115.25	116.17	2.00	0.00	1.00	0.00
115.30	102.45	2.00	0.00	1.00	0.00	115.36	96.99	2.00	0.00	1.00	0.00
115.43	95.48	2.00	0.00	1.00	0.00	115.49	95.25	2.00	0.00	1.00	0.00
115.55	95.04	2.00	0.00	1.00	0.00	115.64	94.55	2.00	0.00	1.00	0.00
115.71	93.88	2.00	0.00	1.00	0.00	115.78	93.10	2.00	0.00	1.00	0.00
115.82	92.19	2.00	0.00	1.00	0.00	115.88	91.07	2.00	0.00	1.00	0.00
115.95	89.57	2.00	0.00	1.00	0.00	116.05	88.09	2.00	0.00	1.00	0.00
116.09	87.18	2.00	0.00	1.00	0.00	116.16	86.93	2.00	0.00	1.00	0.00
116.22	87.12	2.00	0.00	1.00	0.00	116.28	88.37	2.00	0.00	1.00	0.00
116.36	90.40	2.00	0.00	1.00	0.00	116.43	94.43	2.00	0.00	1.00	0.00
116.49	100.52	2.00	0.00	1.00	0.00	116.54	113.42	2.00	0.00	1.00	0.00
116.60	125.32	2.00	0.00	1.00	0.00	116.67	133.20	2.00	0.00	1.00	0.00
116.74	124.38	2.00	0.00	1.00	0.00	116.81	121.46	2.00	0.00	1.00	0.00
116.90	125.71	2.00	0.00	1.00	0.00	116.94	134.87	2.00	0.00	1.00	0.00
117.02	141.19	2.00	0.00	1.00	0.00	117.08	139.21	2.00	0.00	1.00	0.00
117.16	132.17	2.00	0.00	1.00	0.00	117.20	122.15	2.00	0.00	1.00	0.00
117.29	114.51	2.00	0.00	1.00	0.00	117.34	108.83	2.00	0.00	1.00	0.00
117.41	108.19	2.00	0.00	1.00	0.00	117.46	111.84	2.00	0.00	1.00	0.00
117.53	121.57	2.00	0.00	1.00	0.00	117.61	130.12	2.00	0.00	1.00	0.00
117.66	136.01	2.00	0.00	1.00	0.00	117.73	140.44	2.00	0.00	1.00	0.00
117.80	150.18	2.00	0.00	1.00	0.00	117.90	158.07	2.00	0.00	1.00	0.00
117.93	159.37	2.00	0.00	1.00	0.00	117.98	150.04	2.00	0.00	1.00	0.00
118.07	143.13	2.00	0.00	1.00	0.00	118.12	140.59	2.00	0.00	1.00	0.00
118.18	133.87	2.00	0.00	1.00	0.00	118.25	145.01	2.00	0.00	1.00	0.00
118.31	159.26	2.00	0.00	1.00	0.00	118.39	165.15	2.00	0.00	1.00	0.00
118.44	152.97	2.00	0.00	1.00	0.00	118.53	138.80	2.00	0.00	1.00	0.00
118.58	128.77	2.00	0.00	1.00	0.00	118.65	127.84	2.00	0.00	1.00	0.00
118.71	125.75	2.00	0.00	1.00	0.00	118.77	117.56	2.00	0.00	1.00	0.00
118.84	119.49	2.00	0.00	1.00	0.00	118.93	119.44	2.00	0.00	1.00	0.00
118.98	117.70	2.00	0.00	1.00	0.00	119.03	114.15	2.00	0.00	1.00	0.00
119.11	-1.00	2.00	0.00	1.00	0.00	119.16	-1.00	2.00	0.00	1.00	0.00
119.23	-1.00	2.00	0.00	1.00	0.00	119.29	-1.00	2.00	0.00	1.00	0.00
119.39	-1.00	2.00	0.00	1.00	0.00						

**Total estimated settlement: 1.32**

**Abbreviations**

- Q<sub>tn,cs</sub>: Equivalent clean sand normalized cone resistance
- FS: Factor of safety against liquefaction
- e<sub>v</sub> (%): Post-liquefaction volumetric strain
- DF: e<sub>v</sub> depth weighting factor
- Settlement: Calculated settlement

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**LIQUEFACTION ANALYSIS REPORT**

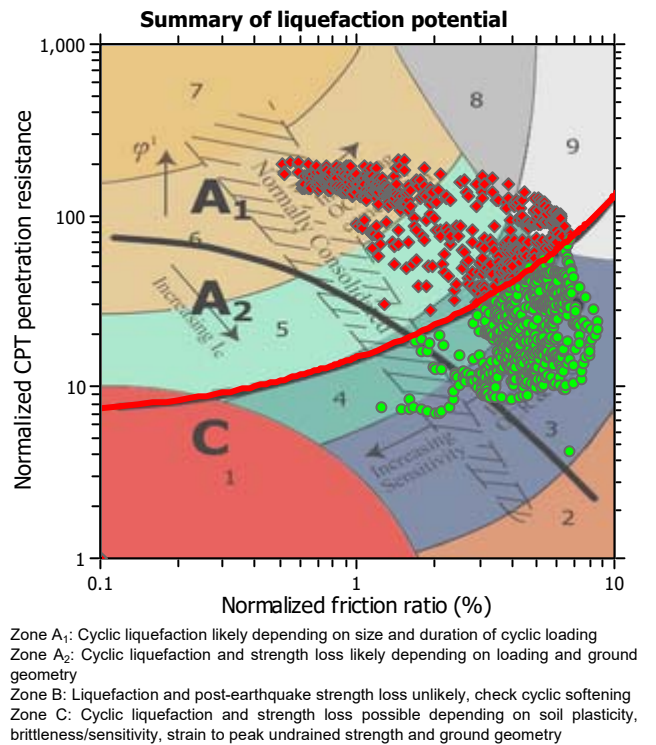
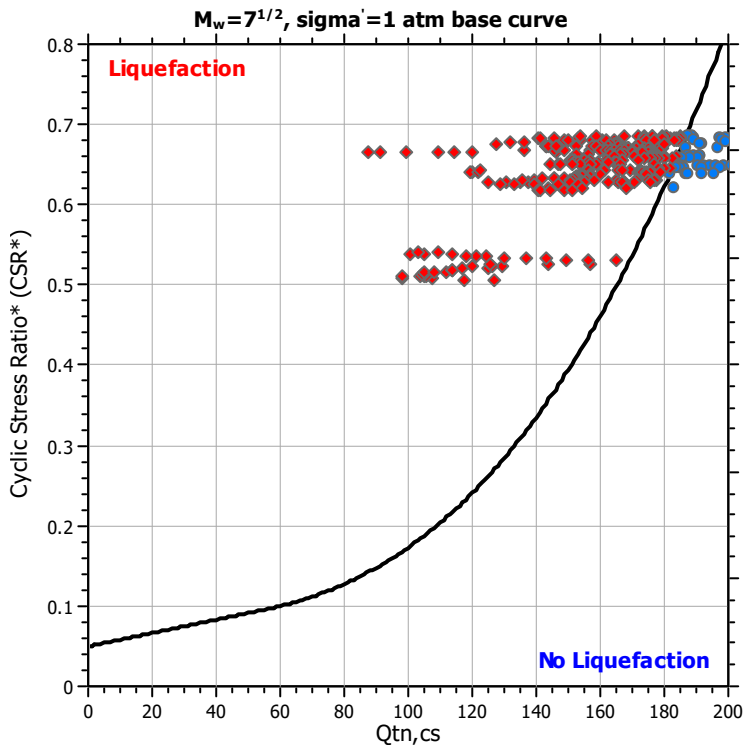
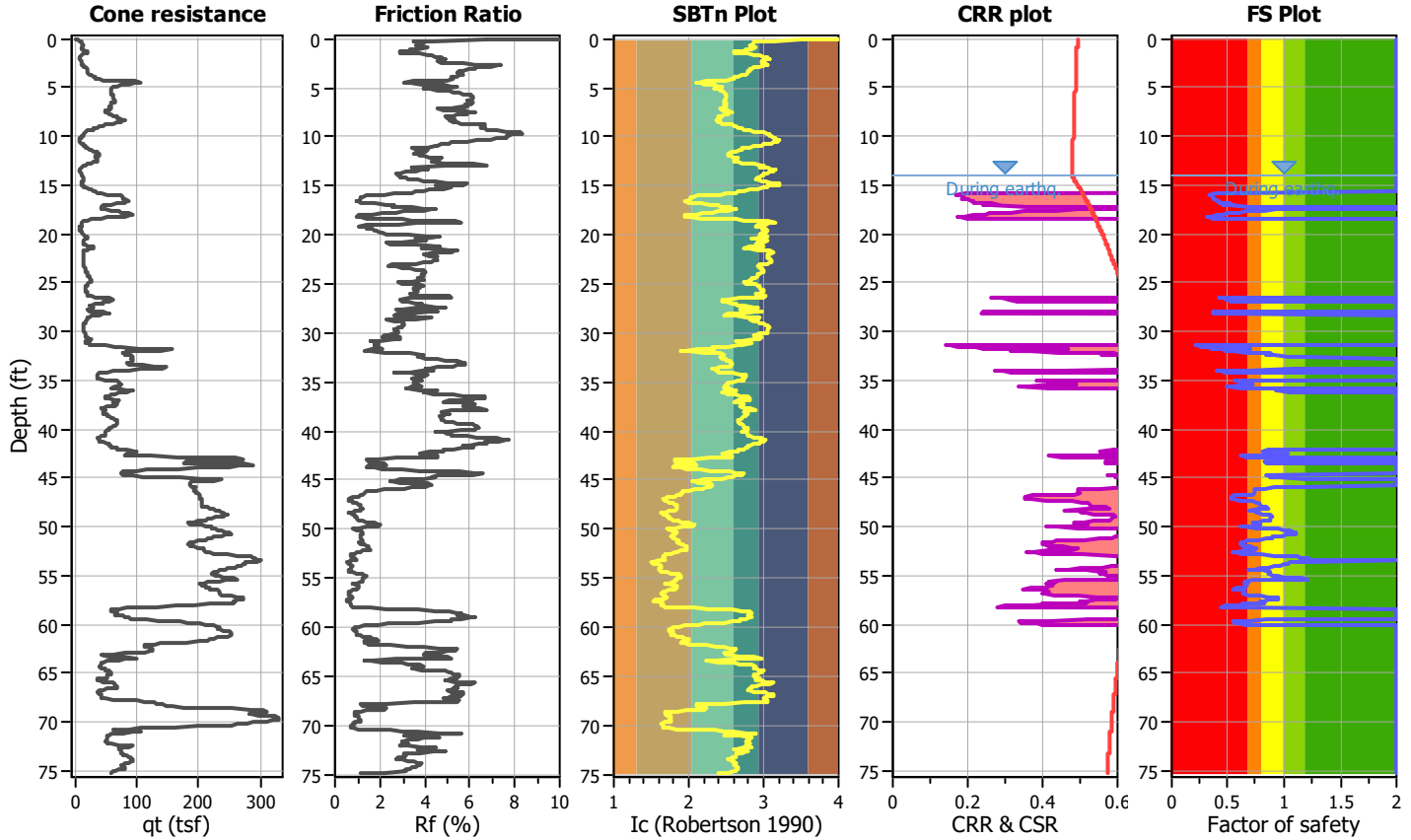
**Project title : 8339 W 3rd Street, Los Angeles**

**Location : 8339 W 3rd Street, Los Angeles**

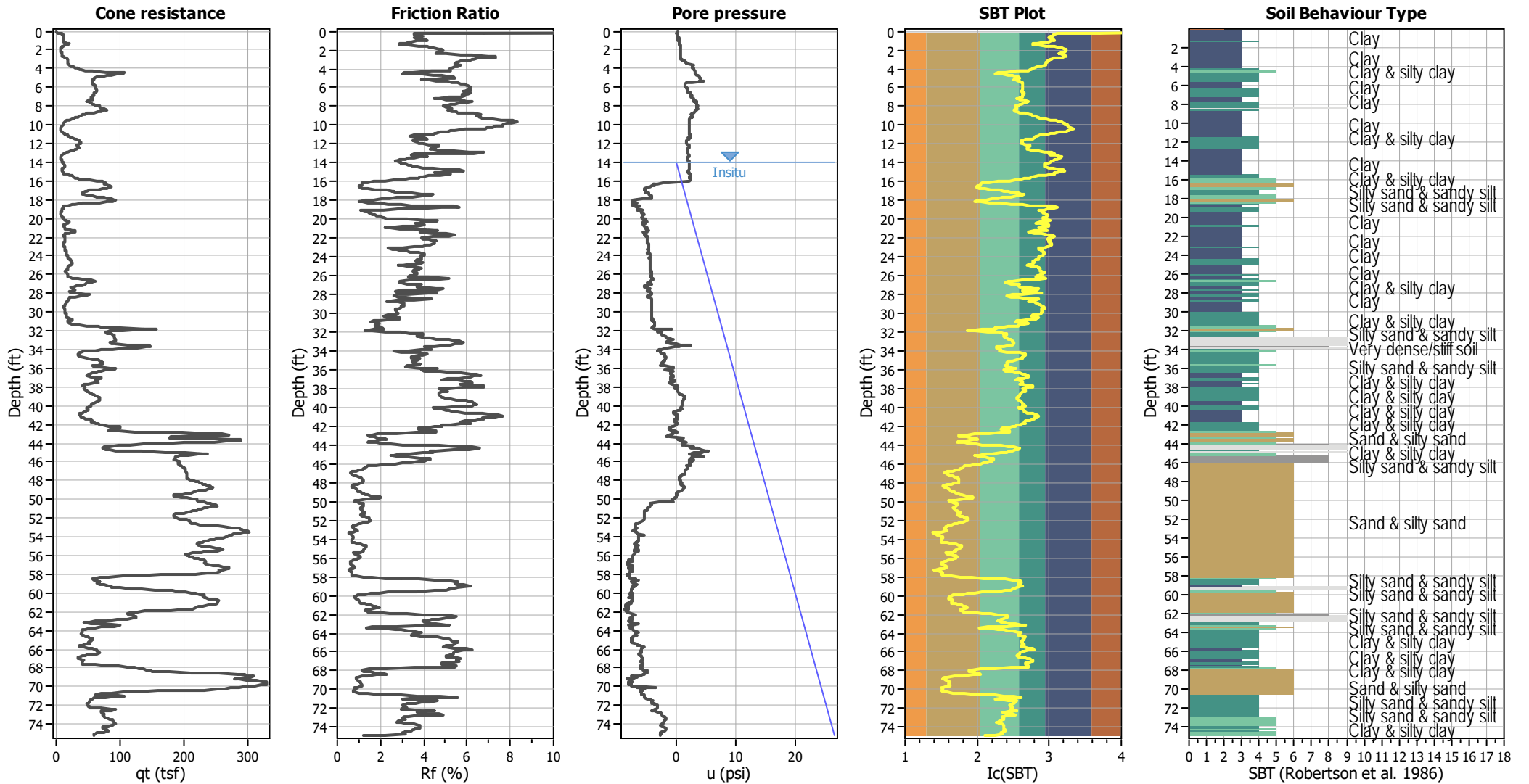
**CPT file : CPT-1**

**Input parameters and analysis data**

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	14.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	14.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	60.00 ft
Earthquake magnitude $M_w$ :	6.78	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.98	Unit weight calculation:	Based on SBT	$K_0$ applied:	Yes		



### CPT basic interpretation plots



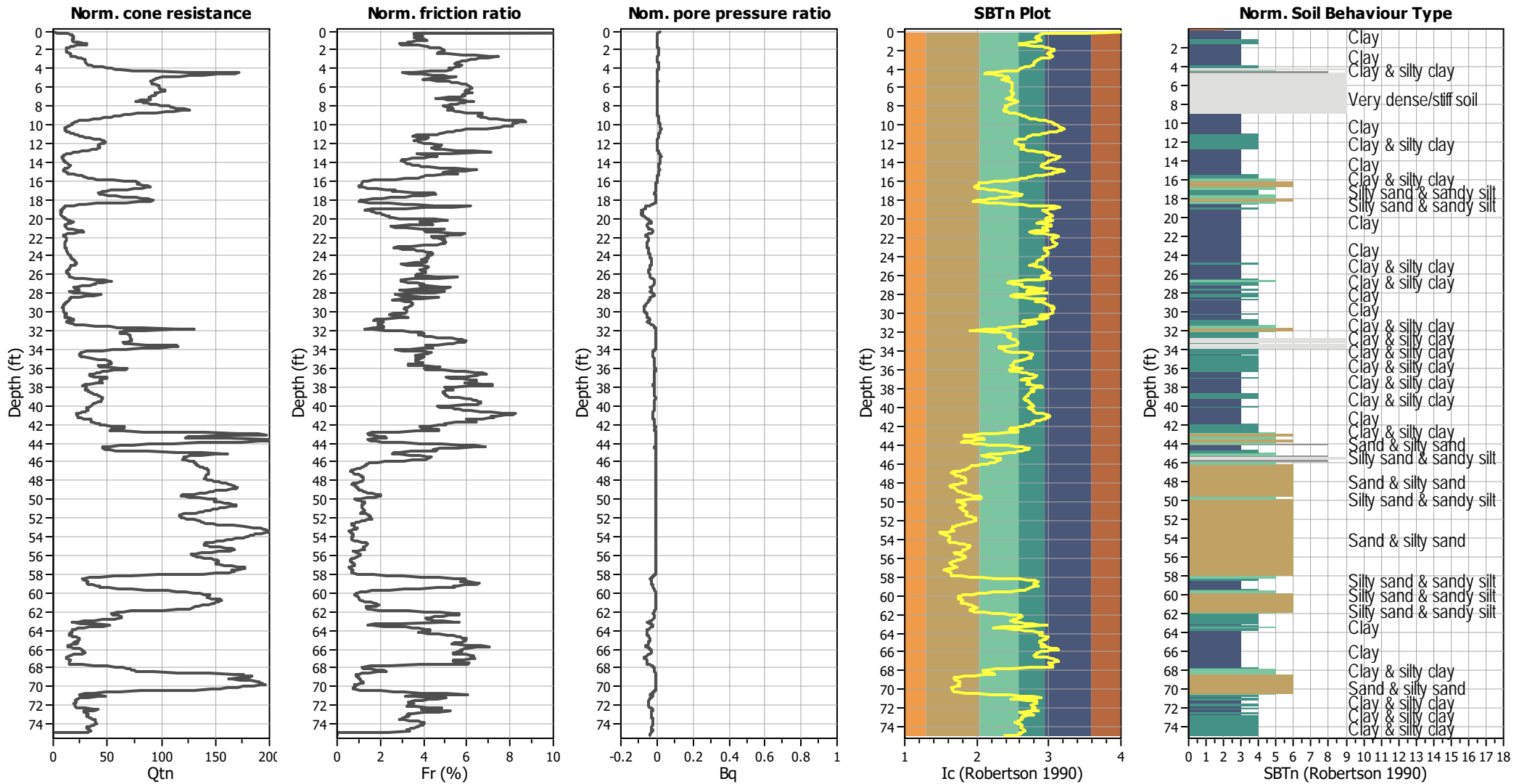
#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>0</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

#### SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

### CPT basic interpretation plots (normalized)



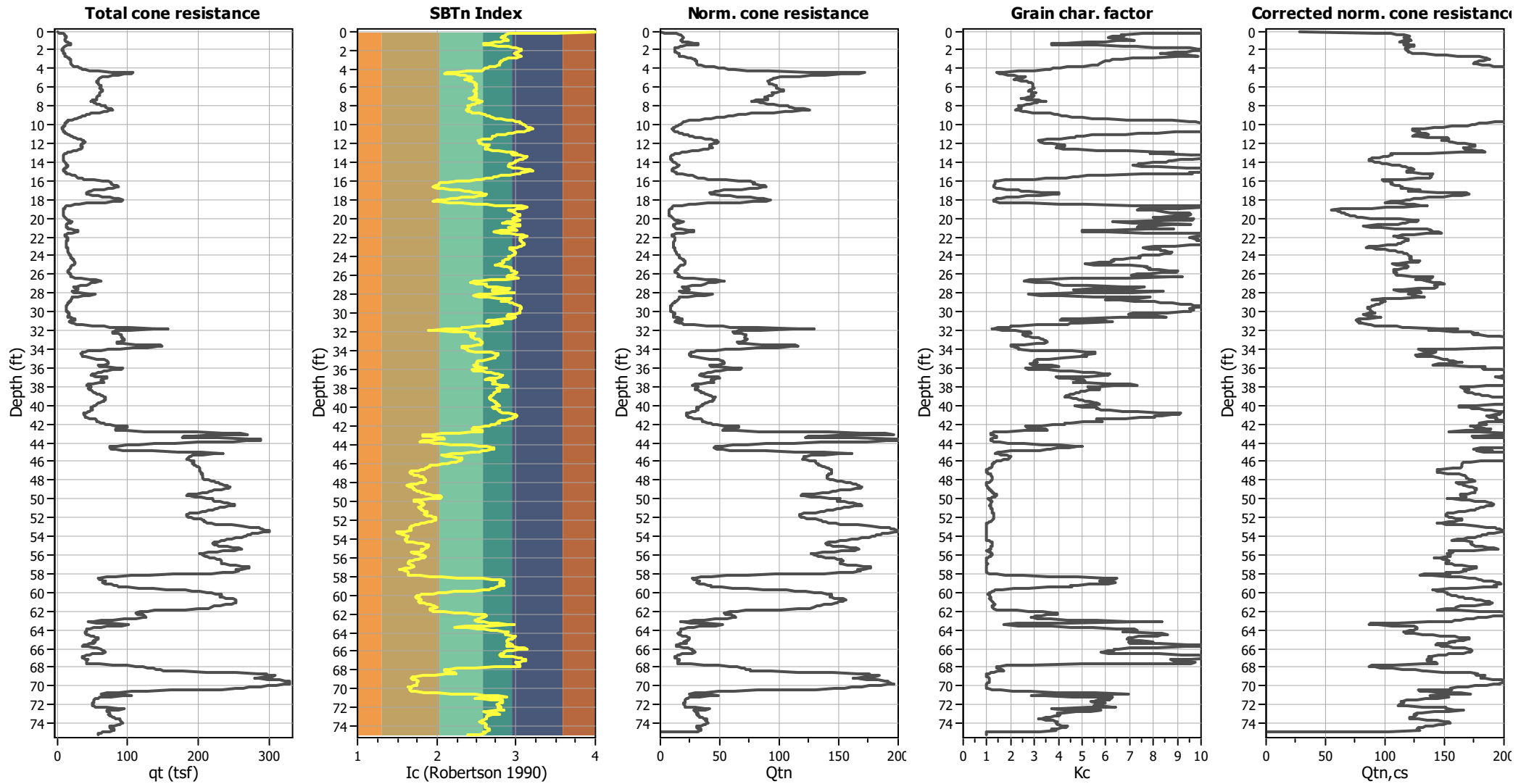
#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>o</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

#### SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

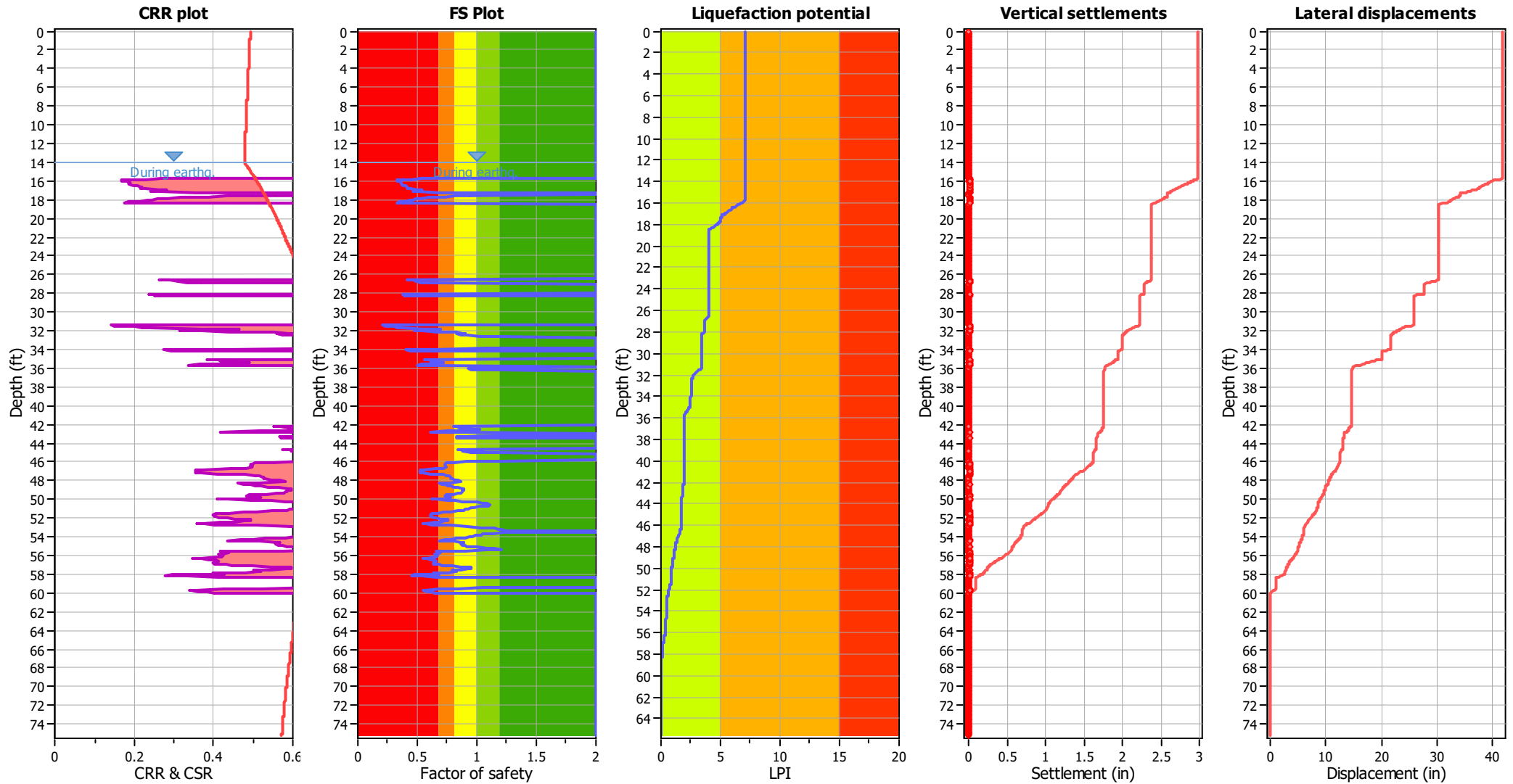
### Liquefaction analysis overall plots (intermediate results)



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>c</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

### Liquefaction analysis overall plots



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	$K_{\sigma}$ applied:	Yes
Earthquake magnitude $M_w$ :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

#### F.S. color scheme

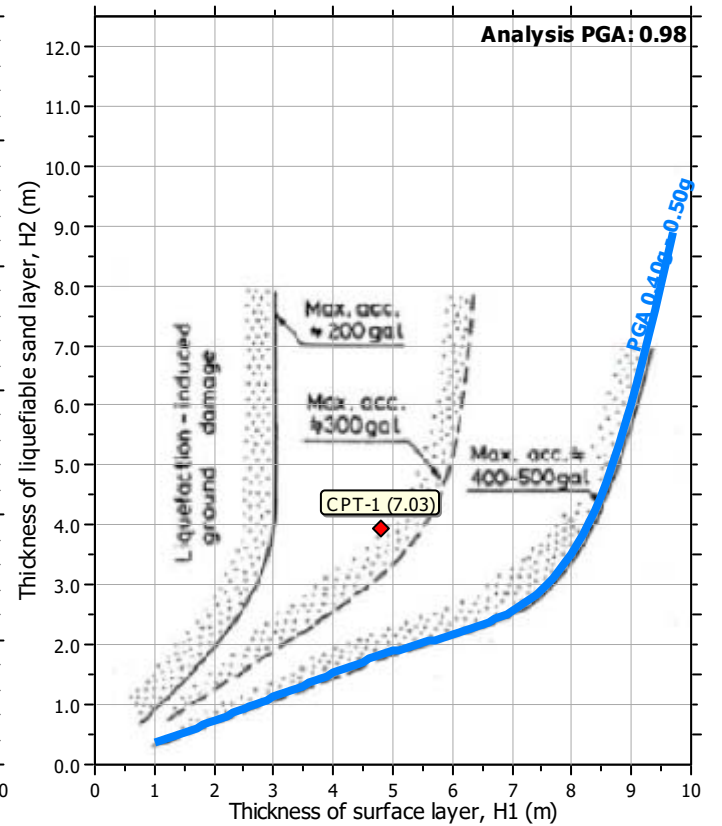
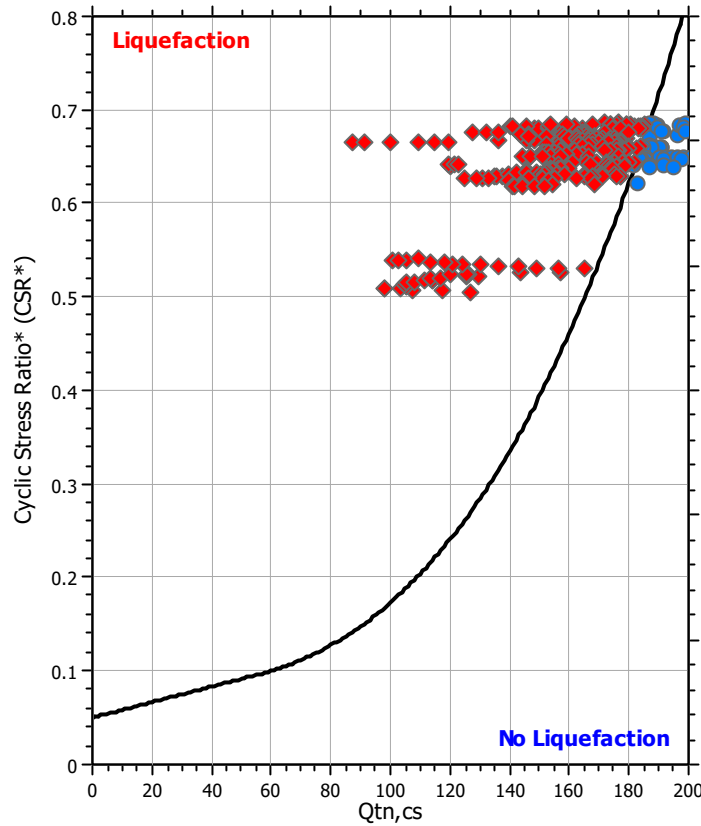
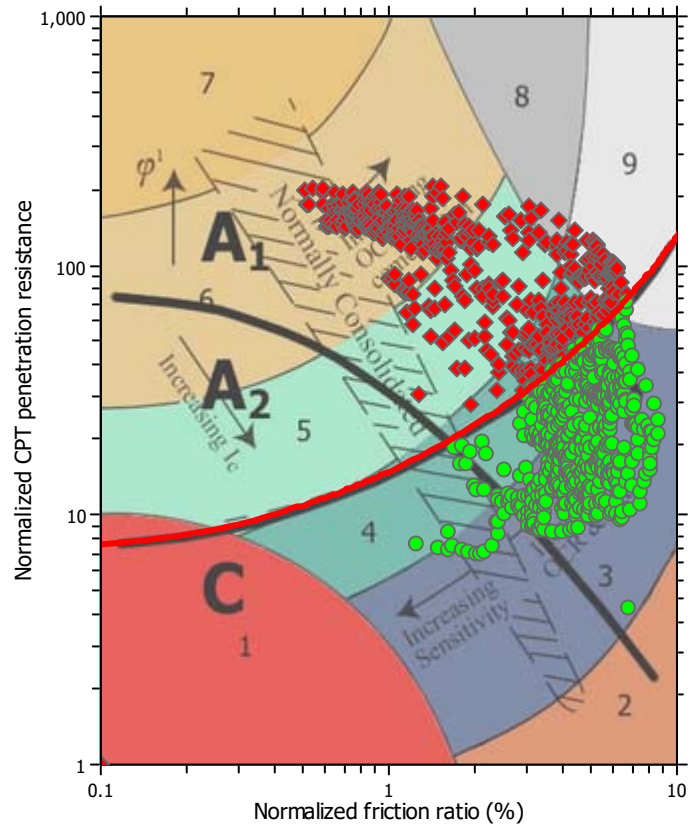
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

#### LPI color scheme

- Very high risk
- High risk
- Low risk



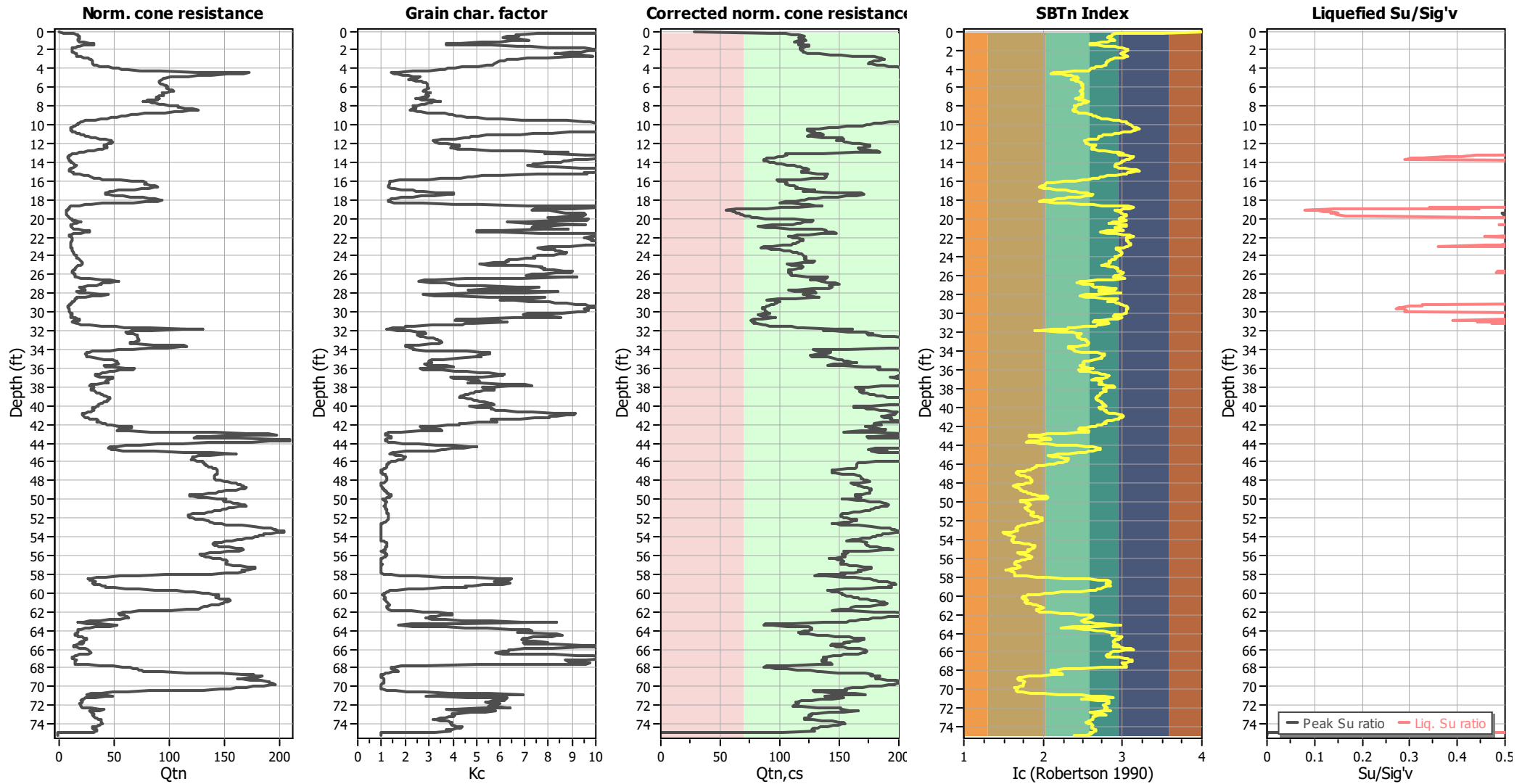
### Liquefaction analysis summary plots



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	$K_v$ applied:	Yes
Earthquake magnitude $M_w$ :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

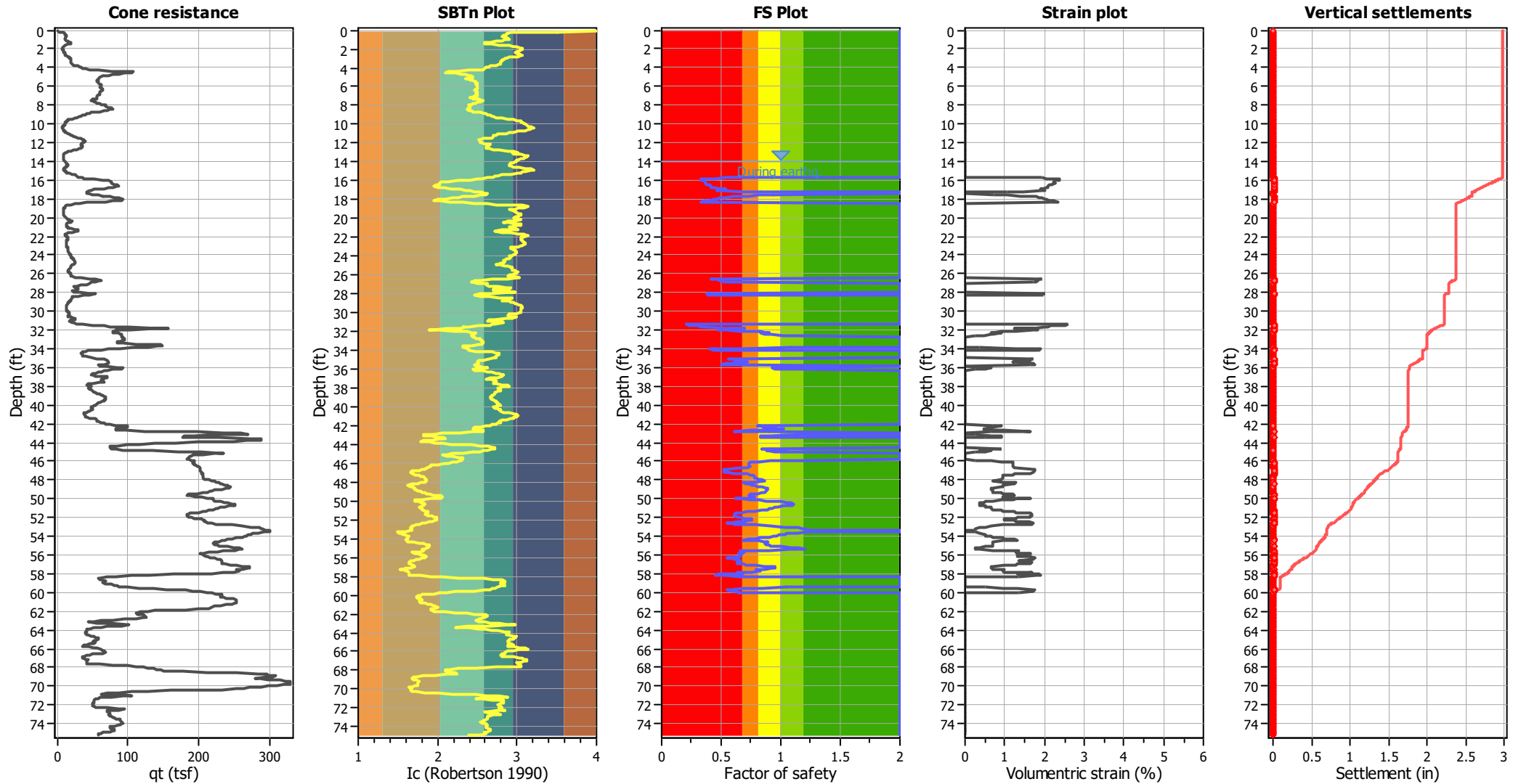
### Check for strength loss plots (Robertson (2010))



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>c</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

### Estimation of post-earthquake settlements



**Abbreviations**

- qt: Total cone resistance (cone resistance  $q_c$  corrected for pore water effects)
- $I_c$ : Soil Behaviour Type Index
- FS: Calculated Factor of Safety against liquefaction
- Volumetric strain: Post-liquefaction volumetric strain

:: Post-earthquake settlement due to soil liquefaction ::											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
14.05	94.61	2.00	0.00	1.00	0.00	14.14	97.39	2.00	0.00	1.00	0.00
14.18	101.71	2.00	0.00	1.00	0.00	14.25	105.76	2.00	0.00	1.00	0.00
14.31	109.50	2.00	0.00	1.00	0.00	14.39	112.12	2.00	0.00	1.00	0.00
14.44	114.04	2.00	0.00	1.00	0.00	14.53	116.83	2.00	0.00	1.00	0.00
14.57	119.48	2.00	0.00	1.00	0.00	14.65	122.30	2.00	0.00	1.00	0.00
14.71	124.68	2.00	0.00	1.00	0.00	14.80	124.90	2.00	0.00	1.00	0.00
14.85	123.53	2.00	0.00	1.00	0.00	14.92	121.22	2.00	0.00	1.00	0.00
14.98	118.70	2.00	0.00	1.00	0.00	15.04	117.84	2.00	0.00	1.00	0.00
15.11	122.97	2.00	0.00	1.00	0.00	15.19	131.31	2.00	0.00	1.00	0.00
15.25	139.62	2.00	0.00	1.00	0.00	15.31	140.59	2.00	0.00	1.00	0.00
15.36	139.37	2.00	0.00	1.00	0.00	15.45	138.06	2.00	0.00	1.00	0.00
15.50	138.58	2.00	0.00	1.00	0.00	15.60	139.09	2.00	0.00	1.00	0.00
15.64	137.66	2.00	0.00	1.00	0.00	15.70	133.28	2.00	0.00	1.00	0.00
15.76	126.73	0.53	1.92	1.00	0.01	15.81	117.39	0.46	2.05	1.00	0.01
15.89	107.59	0.39	2.20	1.00	0.02	15.95	97.99	0.33	2.38	1.00	0.01
16.05	98.31	0.33	2.37	1.00	0.03	16.08	103.56	0.36	2.27	1.00	0.01
16.17	105.06	0.37	2.24	1.00	0.03	16.21	105.69	0.37	2.23	1.00	0.01
16.29	104.83	0.36	2.25	1.00	0.02	16.35	104.41	0.36	2.26	1.00	0.02
16.41	105.19	0.37	2.24	1.00	0.02	16.47	108.21	0.38	2.19	1.00	0.02
16.55	111.63	0.41	2.14	1.00	0.02	16.61	113.91	0.42	2.10	1.00	0.02
16.67	114.06	0.42	2.10	1.00	0.01	16.75	113.69	0.42	2.10	1.00	0.02
16.82	116.62	0.44	2.06	1.00	0.02	16.89	125.27	0.50	1.94	1.00	0.02
16.96	129.44	0.54	1.89	1.00	0.02	17.02	126.06	0.51	1.93	1.00	0.01
17.08	119.92	0.46	2.01	1.00	0.02	17.13	125.45	0.50	1.94	1.00	0.01
17.20	143.74	0.68	1.47	1.00	0.01	17.28	156.96	0.83	1.05	1.00	0.01
17.33	168.02	2.00	0.00	1.00	0.00	17.41	171.31	2.00	0.00	1.00	0.00
17.46	171.11	2.00	0.00	1.00	0.00	17.53	164.87	0.94	0.75	1.00	0.01
17.59	156.38	0.82	1.06	1.00	0.01	17.65	149.24	0.73	1.39	1.00	0.01
17.72	142.95	0.66	1.48	1.00	0.01	17.79	136.58	0.59	1.81	1.00	0.01
17.86	130.09	0.53	1.88	1.00	0.02	17.92	124.26	0.48	1.96	1.00	0.02
18.01	121.08	0.46	2.00	1.00	0.02	18.05	118.02	0.43	2.04	1.00	0.01
18.13	113.46	0.40	2.11	1.00	0.02	18.18	105.07	0.35	2.24	1.00	0.01
18.28	100.48	0.32	2.33	1.00	0.03	18.32	102.87	0.34	2.28	1.00	0.01
18.41	109.32	0.37	2.17	1.00	0.02	18.45	118.99	2.00	0.00	1.00	0.00
18.52	123.94	2.00	0.00	1.00	0.00	18.59	130.74	2.00	0.00	1.00	0.00
18.64	135.73	2.00	0.00	1.00	0.00	18.71	129.89	2.00	0.00	1.00	0.00
18.79	115.87	2.00	0.00	1.00	0.00	18.85	101.37	2.00	0.00	1.00	0.00
18.94	89.00	2.00	0.00	1.00	0.00	18.98	76.77	2.00	0.00	1.00	0.00
19.03	63.03	2.00	0.00	1.00	0.00	19.11	55.30	2.00	0.00	1.00	0.00
19.16	59.09	2.00	0.00	1.00	0.00	19.25	60.72	2.00	0.00	1.00	0.00
19.30	61.93	2.00	0.00	1.00	0.00	19.36	63.42	2.00	0.00	1.00	0.00
19.45	64.56	2.00	0.00	1.00	0.00	19.50	65.86	2.00	0.00	1.00	0.00
19.59	66.58	2.00	0.00	1.00	0.00	19.63	68.03	2.00	0.00	1.00	0.00
19.69	71.28	2.00	0.00	1.00	0.00	19.77	74.69	2.00	0.00	1.00	0.00
19.85	76.90	2.00	0.00	1.00	0.00	19.90	80.71	2.00	0.00	1.00	0.00
19.99	87.21	2.00	0.00	1.00	0.00	20.02	98.43	2.00	0.00	1.00	0.00
20.09	111.91	2.00	0.00	1.00	0.00	20.16	123.20	2.00	0.00	1.00	0.00
20.22	128.53	2.00	0.00	1.00	0.00	20.30	126.71	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
20.36	123.58	2.00	0.00	1.00	0.00	20.43	120.77	2.00	0.00	1.00	0.00
20.47	117.63	2.00	0.00	1.00	0.00	20.57	114.38	2.00	0.00	1.00	0.00
20.61	111.10	2.00	0.00	1.00	0.00	20.67	105.04	2.00	0.00	1.00	0.00
20.74	94.33	2.00	0.00	1.00	0.00	20.83	84.34	2.00	0.00	1.00	0.00
20.87	82.27	2.00	0.00	1.00	0.00	20.96	87.24	2.00	0.00	1.00	0.00
21.01	95.94	2.00	0.00	1.00	0.00	21.07	108.76	2.00	0.00	1.00	0.00
21.14	124.68	2.00	0.00	1.00	0.00	21.21	135.66	2.00	0.00	1.00	0.00
21.27	138.94	2.00	0.00	1.00	0.00	21.36	137.69	2.00	0.00	1.00	0.00
21.39	139.89	2.00	0.00	1.00	0.00	21.47	144.82	2.00	0.00	1.00	0.00
21.54	147.78	2.00	0.00	1.00	0.00	21.62	145.28	2.00	0.00	1.00	0.00
21.66	134.98	2.00	0.00	1.00	0.00	21.76	124.63	2.00	0.00	1.00	0.00
21.80	114.22	2.00	0.00	1.00	0.00	21.85	110.73	2.00	0.00	1.00	0.00
21.94	107.67	2.00	0.00	1.00	0.00	21.99	108.26	2.00	0.00	1.00	0.00
22.07	110.87	2.00	0.00	1.00	0.00	22.12	115.20	2.00	0.00	1.00	0.00
22.21	118.27	2.00	0.00	1.00	0.00	22.25	119.92	2.00	0.00	1.00	0.00
22.35	119.79	2.00	0.00	1.00	0.00	22.38	118.65	2.00	0.00	1.00	0.00
22.45	117.60	2.00	0.00	1.00	0.00	22.52	116.15	2.00	0.00	1.00	0.00
22.60	114.44	2.00	0.00	1.00	0.00	22.66	112.86	2.00	0.00	1.00	0.00
22.74	111.55	2.00	0.00	1.00	0.00	22.79	109.68	2.00	0.00	1.00	0.00
22.87	107.91	2.00	0.00	1.00	0.00	22.92	102.74	2.00	0.00	1.00	0.00
22.97	94.31	2.00	0.00	1.00	0.00	23.04	86.43	2.00	0.00	1.00	0.00
23.10	84.62	2.00	0.00	1.00	0.00	23.19	88.45	2.00	0.00	1.00	0.00
23.23	92.78	2.00	0.00	1.00	0.00	23.30	96.43	2.00	0.00	1.00	0.00
23.36	100.55	2.00	0.00	1.00	0.00	23.45	103.55	2.00	0.00	1.00	0.00
23.50	108.17	2.00	0.00	1.00	0.00	23.58	111.57	2.00	0.00	1.00	0.00
23.63	114.87	2.00	0.00	1.00	0.00	23.71	116.36	2.00	0.00	1.00	0.00
23.77	118.01	2.00	0.00	1.00	0.00	23.85	119.04	2.00	0.00	1.00	0.00
23.90	119.25	2.00	0.00	1.00	0.00	23.95	119.82	2.00	0.00	1.00	0.00
24.02	120.44	2.00	0.00	1.00	0.00	24.12	121.47	2.00	0.00	1.00	0.00
24.18	121.41	2.00	0.00	1.00	0.00	24.22	121.38	2.00	0.00	1.00	0.00
24.30	121.14	2.00	0.00	1.00	0.00	24.36	121.24	2.00	0.00	1.00	0.00
24.42	121.82	2.00	0.00	1.00	0.00	24.48	123.78	2.00	0.00	1.00	0.00
24.56	126.28	2.00	0.00	1.00	0.00	24.61	129.69	2.00	0.00	1.00	0.00
24.70	128.34	2.00	0.00	1.00	0.00	24.74	120.02	2.00	0.00	1.00	0.00
24.83	110.96	2.00	0.00	1.00	0.00	24.87	106.63	2.00	0.00	1.00	0.00
24.97	110.07	2.00	0.00	1.00	0.00	25.01	115.00	2.00	0.00	1.00	0.00
25.07	117.76	2.00	0.00	1.00	0.00	25.14	119.71	2.00	0.00	1.00	0.00
25.22	119.51	2.00	0.00	1.00	0.00	25.28	118.19	2.00	0.00	1.00	0.00
25.37	115.83	2.00	0.00	1.00	0.00	25.41	111.47	2.00	0.00	1.00	0.00
25.50	108.96	2.00	0.00	1.00	0.00	25.54	107.23	2.00	0.00	1.00	0.00
25.63	107.23	2.00	0.00	1.00	0.00	25.66	107.36	2.00	0.00	1.00	0.00
25.74	107.85	2.00	0.00	1.00	0.00	25.81	108.69	2.00	0.00	1.00	0.00
25.86	109.50	2.00	0.00	1.00	0.00	25.93	109.69	2.00	0.00	1.00	0.00
25.99	109.13	2.00	0.00	1.00	0.00	26.08	109.22	2.00	0.00	1.00	0.00
26.13	113.46	2.00	0.00	1.00	0.00	26.18	123.36	2.00	0.00	1.00	0.00
26.25	136.84	2.00	0.00	1.00	0.00	26.32	140.26	2.00	0.00	1.00	0.00
26.39	138.45	2.00	0.00	1.00	0.00	26.48	127.84	2.00	0.00	1.00	0.00
26.52	125.10	0.42	1.94	1.00	0.01	26.58	130.64	0.46	1.88	1.00	0.01

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
26.69	135.10	0.49	1.83	1.00	0.02	26.73	137.51	0.51	1.80	1.00	0.01
26.78	135.73	0.50	1.82	1.00	0.01	26.85	139.63	0.53	1.78	1.00	0.01
26.93	146.05	0.59	1.71	1.00	0.01	26.97	150.55	2.00	0.00	1.00	0.00
27.05	149.58	2.00	0.00	1.00	0.00	27.10	145.93	2.00	0.00	1.00	0.00
27.19	142.22	2.00	0.00	1.00	0.00	27.23	140.91	2.00	0.00	1.00	0.00
27.32	143.55	2.00	0.00	1.00	0.00	27.37	143.93	2.00	0.00	1.00	0.00
27.46	141.68	2.00	0.00	1.00	0.00	27.50	127.86	2.00	0.00	1.00	0.00
27.59	114.81	2.00	0.00	1.00	0.00	27.64	106.77	2.00	0.00	1.00	0.00
27.73	112.24	2.00	0.00	1.00	0.00	27.77	122.54	2.00	0.00	1.00	0.00
27.84	129.86	2.00	0.00	1.00	0.00	27.90	130.95	2.00	0.00	1.00	0.00
27.97	124.25	2.00	0.00	1.00	0.00	28.03	119.85	0.37	2.01	1.00	0.02
28.14	119.53	0.37	2.02	1.00	0.02	28.17	121.63	0.39	1.99	1.00	0.01
28.22	122.74	0.39	1.98	1.00	0.01	28.30	126.16	2.00	0.00	1.00	0.00
28.37	130.54	2.00	0.00	1.00	0.00	28.43	132.55	2.00	0.00	1.00	0.00
28.48	129.13	2.00	0.00	1.00	0.00	28.55	113.89	2.00	0.00	1.00	0.00
28.61	98.91	2.00	0.00	1.00	0.00	28.70	89.43	2.00	0.00	1.00	0.00
28.75	94.62	2.00	0.00	1.00	0.00	28.82	97.97	2.00	0.00	1.00	0.00
28.88	99.65	2.00	0.00	1.00	0.00	28.95	98.96	2.00	0.00	1.00	0.00
29.04	97.77	2.00	0.00	1.00	0.00	29.09	96.73	2.00	0.00	1.00	0.00
29.15	94.69	2.00	0.00	1.00	0.00	29.24	93.09	2.00	0.00	1.00	0.00
29.28	90.84	2.00	0.00	1.00	0.00	29.37	90.06	2.00	0.00	1.00	0.00
29.41	88.48	2.00	0.00	1.00	0.00	29.50	87.29	2.00	0.00	1.00	0.00
29.54	85.93	2.00	0.00	1.00	0.00	29.60	85.55	2.00	0.00	1.00	0.00
29.66	86.07	2.00	0.00	1.00	0.00	29.73	86.85	2.00	0.00	1.00	0.00
29.82	87.26	2.00	0.00	1.00	0.00	29.86	87.51	2.00	0.00	1.00	0.00
29.93	87.39	2.00	0.00	1.00	0.00	29.99	88.96	2.00	0.00	1.00	0.00
30.09	90.80	2.00	0.00	1.00	0.00	30.13	91.71	2.00	0.00	1.00	0.00
30.19	86.39	2.00	0.00	1.00	0.00	30.26	82.60	2.00	0.00	1.00	0.00
30.35	81.65	2.00	0.00	1.00	0.00	30.40	85.89	2.00	0.00	1.00	0.00
30.46	88.49	2.00	0.00	1.00	0.00	30.52	93.46	2.00	0.00	1.00	0.00
30.61	96.68	2.00	0.00	1.00	0.00	30.66	94.57	2.00	0.00	1.00	0.00
30.75	85.86	2.00	0.00	1.00	0.00	30.80	78.38	2.00	0.00	1.00	0.00
30.84	75.16	2.00	0.00	1.00	0.00	30.93	75.28	2.00	0.00	1.00	0.00
30.97	76.82	2.00	0.00	1.00	0.00	31.06	76.65	2.00	0.00	1.00	0.00
31.10	78.99	2.00	0.00	1.00	0.00	31.20	77.47	2.00	0.00	1.00	0.00
31.29	80.41	2.00	0.00	1.00	0.00	31.32	86.30	2.00	0.00	1.00	0.00
31.37	87.22	0.21	2.61	1.00	0.02	31.46	91.51	0.23	2.51	1.00	0.03
31.50	99.68	0.26	2.34	1.00	0.01	31.59	109.43	0.30	2.17	1.00	0.02
31.65	114.51	0.33	2.09	1.00	0.01	31.73	119.71	0.36	2.02	1.00	0.02
31.77	146.34	0.56	1.71	1.00	0.01	31.83	160.76	0.70	1.25	1.00	0.01
31.89	148.57	0.58	1.71	1.00	0.01	31.99	136.10	0.47	1.81	1.00	0.02
32.04	145.73	0.55	1.72	1.00	0.01	32.12	157.12	0.66	1.29	1.00	0.01
32.17	171.89	0.83	0.92	1.00	0.01	32.22	176.10	0.88	0.68	1.00	0.00
32.31	177.85	0.90	0.67	1.00	0.01	32.36	172.57	0.83	0.92	1.00	0.01
32.44	174.72	0.86	0.69	1.00	0.01	32.49	179.24	0.92	0.66	1.00	0.00
32.58	187.03	1.03	0.49	1.00	0.01	32.61	196.73	1.18	0.25	1.00	0.00
32.71	205.05	2.00	0.00	1.00	0.00	32.75	215.94	2.00	0.00	1.00	0.00
32.82	226.50	2.00	0.00	1.00	0.00	32.88	237.34	2.00	0.00	1.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
32.95	244.99	2.00	0.00	1.00	0.00	33.02	248.82	2.00	0.00	1.00	0.00
33.09	247.38	2.00	0.00	1.00	0.00	33.17	242.50	2.00	0.00	1.00	0.00
33.21	234.33	2.00	0.00	1.00	0.00	33.29	227.28	2.00	0.00	1.00	0.00
33.37	222.18	2.00	0.00	1.00	0.00	33.42	220.47	2.00	0.00	1.00	0.00
33.47	217.57	2.00	0.00	1.00	0.00	33.55	220.44	2.00	0.00	1.00	0.00
33.60	225.54	2.00	0.00	1.00	0.00	33.67	229.79	2.00	0.00	1.00	0.00
33.73	229.02	2.00	0.00	1.00	0.00	33.80	223.24	2.00	0.00	1.00	0.00
33.86	191.91	1.09	0.36	1.00	0.00	33.95	158.94	0.67	1.27	1.00	0.01
34.02	127.58	0.40	1.91	1.00	0.01	34.09	131.93	0.43	1.86	1.00	0.02
34.13	136.38	0.47	1.81	1.00	0.01	34.21	142.66	2.00	0.00	1.00	0.00
34.26	143.26	2.00	0.00	1.00	0.00	34.33	142.99	2.00	0.00	1.00	0.00
34.40	138.68	2.00	0.00	1.00	0.00	34.48	136.00	2.00	0.00	1.00	0.00
34.53	132.76	2.00	0.00	1.00	0.00	34.62	126.86	2.00	0.00	1.00	0.00
34.66	125.45	2.00	0.00	1.00	0.00	34.75	126.32	2.00	0.00	1.00	0.00
34.80	132.70	2.00	0.00	1.00	0.00	34.84	139.94	2.00	0.00	1.00	0.00
34.93	144.69	2.00	0.00	1.00	0.00	35.02	148.44	0.56	1.71	1.00	0.02
35.07	149.89	0.58	1.69	1.00	0.01	35.11	153.03	0.61	1.64	1.00	0.01
35.18	153.62	0.61	1.63	1.00	0.01	35.24	157.49	0.65	1.29	1.00	0.01
35.33	160.39	0.68	1.26	1.00	0.01	35.38	164.23	0.72	1.22	1.00	0.01
35.44	161.92	0.70	1.24	1.00	0.01	35.50	153.55	0.61	1.63	1.00	0.01
35.60	145.36	0.54	1.72	1.00	0.02	35.64	140.41	0.49	1.77	1.00	0.01
35.71	141.20	0.50	1.76	1.00	0.01	35.78	153.15	0.61	1.64	1.00	0.01
35.84	170.39	2.00	0.00	1.00	0.00	35.91	183.90	2.00	0.00	1.00	0.00
35.96	183.92	0.96	0.50	1.00	0.00	36.04	181.58	0.93	0.65	1.00	0.01
36.10	183.23	0.95	0.50	1.00	0.00	36.18	189.61	1.04	0.49	1.00	0.00
36.22	197.30	1.16	0.25	1.00	0.00	36.31	205.22	2.00	0.00	1.00	0.00
36.37	212.25	2.00	0.00	1.00	0.00	36.44	217.66	2.00	0.00	1.00	0.00
36.49	219.76	2.00	0.00	1.00	0.00	36.55	218.18	2.00	0.00	1.00	0.00
36.62	212.60	2.00	0.00	1.00	0.00	36.69	204.92	2.00	0.00	1.00	0.00
36.75	199.93	2.00	0.00	1.00	0.00	36.82	199.42	2.00	0.00	1.00	0.00
36.88	196.57	2.00	0.00	1.00	0.00	36.95	192.66	2.00	0.00	1.00	0.00
37.02	192.22	2.00	0.00	1.00	0.00	37.11	198.75	2.00	0.00	1.00	0.00
37.15	209.45	2.00	0.00	1.00	0.00	37.21	215.62	2.00	0.00	1.00	0.00
37.28	219.04	2.00	0.00	1.00	0.00	37.35	219.66	2.00	0.00	1.00	0.00
37.41	218.74	2.00	0.00	1.00	0.00	37.49	214.98	2.00	0.00	1.00	0.00
37.55	209.94	2.00	0.00	1.00	0.00	37.60	206.81	2.00	0.00	1.00	0.00
37.68	206.77	2.00	0.00	1.00	0.00	37.77	203.59	2.00	0.00	1.00	0.00
37.86	199.16	2.00	0.00	1.00	0.00	37.87	184.99	2.00	0.00	1.00	0.00
37.95	174.13	2.00	0.00	1.00	0.00	38.01	164.29	2.00	0.00	1.00	0.00
38.07	163.51	2.00	0.00	1.00	0.00	38.13	165.90	2.00	0.00	1.00	0.00
38.22	168.23	2.00	0.00	1.00	0.00	38.26	170.96	2.00	0.00	1.00	0.00
38.36	169.06	2.00	0.00	1.00	0.00	38.39	167.53	2.00	0.00	1.00	0.00
38.48	166.75	2.00	0.00	1.00	0.00	38.53	167.47	2.00	0.00	1.00	0.00
38.58	169.29	2.00	0.00	1.00	0.00	38.66	170.69	2.00	0.00	1.00	0.00
38.72	172.60	2.00	0.00	1.00	0.00	38.80	175.16	2.00	0.00	1.00	0.00
38.86	178.68	2.00	0.00	1.00	0.00	38.93	182.32	2.00	0.00	1.00	0.00
39.01	186.08	2.00	0.00	1.00	0.00	39.06	190.54	2.00	0.00	1.00	0.00
39.11	197.57	2.00	0.00	1.00	0.00	39.19	204.83	2.00	0.00	1.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
39.25	212.11	2.00	0.00	1.00	0.00	39.31	216.77	2.00	0.00	1.00	0.00
39.38	220.07	2.00	0.00	1.00	0.00	39.46	222.37	2.00	0.00	1.00	0.00
39.52	222.84	2.00	0.00	1.00	0.00	39.60	223.18	2.00	0.00	1.00	0.00
39.63	220.88	2.00	0.00	1.00	0.00	39.70	218.00	2.00	0.00	1.00	0.00
39.78	212.50	2.00	0.00	1.00	0.00	39.84	207.53	2.00	0.00	1.00	0.00
39.91	193.00	2.00	0.00	1.00	0.00	40.00	176.48	2.00	0.00	1.00	0.00
40.03	162.50	2.00	0.00	1.00	0.00	40.13	162.31	2.00	0.00	1.00	0.00
40.18	167.18	2.00	0.00	1.00	0.00	40.27	170.32	2.00	0.00	1.00	0.00
40.30	173.36	2.00	0.00	1.00	0.00	40.40	175.46	2.00	0.00	1.00	0.00
40.42	179.70	2.00	0.00	1.00	0.00	40.49	184.00	2.00	0.00	1.00	0.00
40.58	189.42	2.00	0.00	1.00	0.00	40.62	194.65	2.00	0.00	1.00	0.00
40.71	198.20	2.00	0.00	1.00	0.00	40.76	196.58	2.00	0.00	1.00	0.00
40.84	196.87	2.00	0.00	1.00	0.00	40.88	197.13	2.00	0.00	1.00	0.00
40.96	195.94	2.00	0.00	1.00	0.00	41.02	192.33	2.00	0.00	1.00	0.00
41.11	188.05	2.00	0.00	1.00	0.00	41.15	185.97	2.00	0.00	1.00	0.00
41.24	188.02	2.00	0.00	1.00	0.00	41.29	193.78	2.00	0.00	1.00	0.00
41.37	194.38	2.00	0.00	1.00	0.00	41.42	192.99	2.00	0.00	1.00	0.00
41.51	192.71	2.00	0.00	1.00	0.00	41.55	196.16	2.00	0.00	1.00	0.00
41.60	201.28	2.00	0.00	1.00	0.00	41.67	204.37	2.00	0.00	1.00	0.00
41.74	194.57	2.00	0.00	1.00	0.00	41.80	186.37	2.00	0.00	1.00	0.00
41.87	179.14	2.00	0.00	1.00	0.00	41.95	182.76	2.00	0.00	1.00	0.00
42.00	184.78	2.00	0.00	1.00	0.00	42.08	180.51	2.00	0.00	1.00	0.00
42.13	176.35	0.86	0.68	1.00	0.00	42.20	171.76	0.80	0.92	1.00	0.01
42.26	173.58	0.83	0.91	1.00	0.01	42.33	176.16	0.86	0.68	1.00	0.01
42.40	180.59	0.92	0.65	1.00	0.01	42.47	184.93	0.98	0.50	1.00	0.00
42.52	188.78	1.03	0.49	1.00	0.00	42.61	187.27	1.01	0.49	1.00	0.01
42.66	167.72	0.76	0.95	1.00	0.01	42.75	153.50	0.61	1.63	1.00	0.02
42.80	159.01	0.66	1.27	1.00	0.01	42.89	179.25	0.90	0.66	1.00	0.01
42.92	202.90	2.00	0.00	1.00	0.00	42.98	221.20	2.00	0.00	1.00	0.00
43.07	230.88	2.00	0.00	1.00	0.00	43.11	222.69	2.00	0.00	1.00	0.00
43.18	199.65	1.20	0.25	1.00	0.00	43.24	179.11	0.90	0.66	1.00	0.01
43.32	173.73	0.83	0.91	1.00	0.01	43.42	174.02	0.83	0.90	1.00	0.01
43.45	184.88	0.98	0.50	1.00	0.00	43.52	204.67	2.00	0.00	1.00	0.00
43.58	230.34	2.00	0.00	1.00	0.00	43.67	239.38	2.00	0.00	1.00	0.00
43.74	243.31	2.00	0.00	1.00	0.00	43.77	234.87	2.00	0.00	1.00	0.00
43.86	224.92	2.00	0.00	1.00	0.00	43.91	214.26	2.00	0.00	1.00	0.00
43.96	208.37	2.00	0.00	1.00	0.00	44.04	212.68	2.00	0.00	1.00	0.00
44.10	228.50	2.00	0.00	1.00	0.00	44.17	242.07	2.00	0.00	1.00	0.00
44.23	248.27	2.00	0.00	1.00	0.00	44.30	245.48	2.00	0.00	1.00	0.00
44.40	237.51	2.00	0.00	1.00	0.00	44.44	222.43	2.00	0.00	1.00	0.00
44.50	201.15	2.00	0.00	1.00	0.00	44.57	180.51	2.00	0.00	1.00	0.00
44.62	174.34	0.84	0.90	1.00	0.01	44.71	183.87	0.97	0.50	1.00	0.01
44.79	189.63	1.05	0.36	1.00	0.00	44.84	184.31	0.97	0.50	1.00	0.00
44.91	177.03	0.88	0.67	1.00	0.01	44.96	183.00	0.96	0.50	1.00	0.00
45.04	198.37	1.19	0.25	1.00	0.00	45.08	215.31	2.00	0.00	1.00	0.00
45.15	220.52	2.00	0.00	1.00	0.00	45.22	218.64	2.00	0.00	1.00	0.00
45.28	219.50	2.00	0.00	1.00	0.00	45.35	228.05	2.00	0.00	1.00	0.00
45.41	237.69	2.00	0.00	1.00	0.00	45.49	243.91	2.00	0.00	1.00	0.00



:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
45.54	243.55	2.00	0.00	1.00	0.00	45.61	237.78	2.00	0.00	1.00	0.00
45.71	230.13	2.00	0.00	1.00	0.00	45.76	220.33	2.00	0.00	1.00	0.00
45.80	210.42	2.00	0.00	1.00	0.00	45.87	199.59	1.21	0.25	1.00	0.00
45.96	191.48	1.08	0.36	1.00	0.00	46.01	179.98	0.92	0.66	1.00	0.00
46.11	172.09	0.82	0.92	1.00	0.01	46.13	165.77	0.74	1.20	1.00	0.00
46.20	164.91	0.74	1.21	1.00	0.01	46.29	164.60	0.73	1.21	1.00	0.01
46.33	164.90	0.74	1.21	1.00	0.01	46.39	164.53	0.73	1.21	1.00	0.01
46.47	164.85	0.74	1.21	1.00	0.01	46.55	165.01	0.74	1.21	1.00	0.01
46.59	165.19	0.74	1.21	1.00	0.01	46.68	163.11	0.72	1.23	1.00	0.01
46.73	157.71	0.66	1.29	1.00	0.01	46.79	146.60	0.55	1.71	1.00	0.01
46.86	143.44	0.53	1.74	1.00	0.02	46.94	143.33	0.53	1.74	1.00	0.02
47.00	143.32	0.53	1.74	1.00	0.01	47.08	143.35	0.53	1.74	1.00	0.02
47.13	143.55	0.53	1.74	1.00	0.01	47.20	146.23	0.55	1.71	1.00	0.01
47.25	152.54	0.61	1.65	1.00	0.01	47.31	158.44	0.67	1.28	1.00	0.01
47.40	162.60	0.71	1.23	1.00	0.01	47.45	165.75	0.75	1.20	1.00	0.01
47.53	167.17	0.77	0.96	1.00	0.01	47.58	168.27	0.78	0.95	1.00	0.00
47.66	168.68	0.78	0.95	1.00	0.01	47.72	168.74	0.79	0.95	1.00	0.01
47.80	168.56	0.78	0.95	1.00	0.01	47.85	169.05	0.79	0.94	1.00	0.01
47.90	170.99	0.81	0.93	1.00	0.01	47.98	173.54	0.85	0.91	1.00	0.01
48.05	175.33	0.87	0.68	1.00	0.01	48.11	175.08	0.87	0.68	1.00	0.00
48.18	167.30	0.77	0.96	1.00	0.01	48.25	159.88	0.69	1.26	1.00	0.01
48.33	162.18	0.71	1.24	1.00	0.01	48.38	163.15	0.72	1.23	1.00	0.01
48.43	164.26	0.74	1.22	1.00	0.01	48.49	166.14	0.76	0.97	1.00	0.01
48.56	166.42	0.76	0.97	1.00	0.01	48.63	167.63	0.78	0.96	1.00	0.01
48.70	170.28	0.81	0.93	1.00	0.01	48.78	173.40	0.85	0.91	1.00	0.01
48.82	176.14	0.88	0.68	1.00	0.00	48.89	177.09	0.90	0.67	1.00	0.01
48.97	176.93	0.89	0.67	1.00	0.01	49.04	176.13	0.88	0.68	1.00	0.01
49.09	175.87	0.88	0.68	1.00	0.00	49.17	175.77	0.88	0.68	1.00	0.01
49.22	175.56	0.88	0.68	1.00	0.00	49.28	175.11	0.87	0.68	1.00	0.01
49.35	172.99	0.84	0.91	1.00	0.01	49.43	169.78	0.81	0.94	1.00	0.01
49.49	166.68	0.77	0.96	1.00	0.01	49.55	163.96	0.74	1.22	1.00	0.01
49.62	162.92	0.73	1.23	1.00	0.01	49.70	163.19	0.73	1.23	1.00	0.01
49.75	166.28	0.77	0.97	1.00	0.00	49.80	167.71	0.78	0.96	1.00	0.01
49.89	166.43	0.77	0.97	1.00	0.01	49.95	152.56	0.62	1.65	1.00	0.01
50.01	156.20	0.66	1.31	1.00	0.01	50.08	164.66	0.75	1.21	1.00	0.01
50.16	170.83	0.82	0.93	1.00	0.01	50.20	175.52	0.88	0.68	1.00	0.00
50.27	180.16	0.94	0.66	1.00	0.00	50.34	183.81	1.00	0.50	1.00	0.00
50.41	187.32	1.05	0.49	1.00	0.00	50.47	189.53	1.08	0.36	1.00	0.00
50.52	191.20	1.11	0.36	1.00	0.00	50.60	191.36	1.11	0.36	1.00	0.00
50.70	190.48	1.10	0.36	1.00	0.00	50.72	188.18	1.06	0.37	1.00	0.00
50.80	185.46	1.02	0.50	1.00	0.00	50.87	182.58	0.98	0.50	1.00	0.00
50.92	180.09	0.95	0.66	1.00	0.00	51.00	178.36	0.92	0.67	1.00	0.01
51.05	176.76	0.90	0.67	1.00	0.00	51.14	175.61	0.89	0.68	1.00	0.01
51.18	173.75	0.86	0.69	1.00	0.00	51.27	171.66	0.84	0.92	1.00	0.01
51.32	166.57	0.78	0.96	1.00	0.01	51.41	161.90	0.72	1.24	1.00	0.01
51.45	156.91	0.67	1.30	1.00	0.01	51.54	154.83	0.65	1.61	1.00	0.02
51.58	152.02	0.62	1.65	1.00	0.01	51.67	151.06	0.61	1.67	1.00	0.02
51.72	150.90	0.61	1.67	1.00	0.01	51.78	151.31	0.61	1.66	1.00	0.01

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
51.84	152.00	0.62	1.65	1.00	0.01	51.91	153.27	0.63	1.63	1.00	0.01
51.98	156.09	0.66	1.31	1.00	0.01	52.07	159.18	0.70	1.27	1.00	0.01
52.10	162.61	0.74	1.23	1.00	0.01	52.17	164.46	0.76	0.98	1.00	0.01
52.25	164.71	0.76	0.98	1.00	0.01	52.30	162.57	0.74	1.23	1.00	0.01
52.38	158.76	0.69	1.28	1.00	0.01	52.46	153.72	0.64	1.63	1.00	0.02
52.51	147.09	0.58	1.73	1.00	0.01	52.59	144.17	0.55	1.73	1.00	0.02
52.63	147.22	0.58	1.73	1.00	0.01	52.69	151.32	0.62	1.66	1.00	0.01
52.76	156.91	0.68	1.30	1.00	0.01	52.82	166.24	0.78	0.97	1.00	0.01
52.91	176.68	0.91	0.68	1.00	0.01	53.00	185.59	1.04	0.50	1.00	0.01
53.02	190.92	1.12	0.36	1.00	0.00	53.09	192.51	1.15	0.36	1.00	0.00
53.18	194.37	1.18	0.26	1.00	0.00	53.23	196.49	1.21	0.25	1.00	0.00
53.30	198.46	1.25	0.25	1.00	0.00	53.36	201.38	2.00	0.00	1.00	0.00
53.43	203.24	2.00	0.00	1.00	0.00	53.48	203.67	2.00	0.00	1.00	0.00
53.56	197.66	1.24	0.25	1.00	0.00	53.62	191.64	1.14	0.36	1.00	0.00
53.68	186.00	1.05	0.37	1.00	0.00	53.76	184.89	1.03	0.50	1.00	0.00
53.81	183.64	1.02	0.50	1.00	0.00	53.88	181.99	0.99	0.51	1.00	0.00
53.95	180.18	0.97	0.51	1.00	0.00	54.02	177.95	0.94	0.67	1.00	0.01
54.10	175.44	0.90	0.68	1.00	0.01	54.16	172.61	0.87	0.70	1.00	0.00
54.20	169.30	0.83	0.94	1.00	0.00	54.29	165.57	0.78	0.97	1.00	0.01
54.34	161.17	0.73	1.25	1.00	0.01	54.42	156.38	0.68	1.30	1.00	0.01
54.47	167.16	0.80	0.96	1.00	0.01	54.53	172.77	0.87	0.70	1.00	0.01
54.60	173.75	0.88	0.69	1.00	0.01	54.67	172.99	0.88	0.70	1.00	0.01
54.73	172.18	0.87	0.70	1.00	0.01	54.80	172.46	0.87	0.70	1.00	0.01
54.87	173.10	0.88	0.70	1.00	0.01	54.92	174.59	0.90	0.69	1.00	0.00
55.05	175.73	0.91	0.68	1.00	0.01	55.06	178.52	0.95	0.52	1.00	0.00
55.14	182.06	1.00	0.51	1.00	0.01	55.19	187.16	1.08	0.37	1.00	0.00
55.26	191.74	1.15	0.26	1.00	0.00	55.32	195.46	1.21	0.25	1.00	0.00
55.40	187.48	1.09	0.37	1.00	0.00	55.49	174.36	0.90	0.69	1.00	0.01
55.51	159.77	0.72	1.26	1.00	0.00	55.58	153.65	0.65	1.34	1.00	0.01
55.66	156.67	0.69	1.30	1.00	0.01	55.71	156.86	0.69	1.30	1.00	0.01
55.78	154.83	0.67	1.32	1.00	0.01	55.84	152.85	0.65	1.64	1.00	0.01
55.92	153.83	0.66	1.33	1.00	0.01	55.97	154.62	0.67	1.32	1.00	0.01
56.07	154.82	0.67	1.32	1.00	0.02	56.11	154.30	0.66	1.33	1.00	0.01
56.20	152.21	0.64	1.65	1.00	0.02	56.24	145.93	0.58	1.71	1.00	0.01
56.33	141.96	0.55	1.75	1.00	0.02	56.37	145.76	0.58	1.72	1.00	0.01
56.46	148.84	0.61	1.71	1.00	0.02	56.51	151.84	0.64	1.66	1.00	0.01
56.59	152.89	0.65	1.35	1.00	0.01	56.64	153.21	0.66	1.34	1.00	0.01
56.69	152.47	0.65	1.65	1.00	0.01	56.78	151.65	0.64	1.66	1.00	0.02
56.84	150.62	0.63	1.68	1.00	0.01	56.91	151.55	0.64	1.66	1.00	0.01
56.96	155.88	0.68	1.31	1.00	0.01	57.04	158.18	0.71	1.28	1.00	0.01
57.09	164.88	0.79	0.98	1.00	0.01	57.18	171.12	0.87	0.71	1.00	0.01
57.22	175.24	0.92	0.68	1.00	0.00	57.31	177.27	0.95	0.67	1.00	0.01
57.36	177.16	0.95	0.67	1.00	0.00	57.42	175.67	0.93	0.68	1.00	0.01
57.49	170.89	0.87	0.71	1.00	0.01	57.57	167.50	0.82	0.96	1.00	0.01
57.62	165.39	0.80	0.97	1.00	0.01	57.70	167.80	0.83	0.95	1.00	0.01
57.75	167.01	0.82	0.96	1.00	0.01	57.84	162.29	0.76	1.00	1.00	0.01
57.89	150.92	0.64	1.67	1.00	0.01	57.94	155.11	0.68	1.32	1.00	0.01
58.01	146.62	0.60	1.71	1.00	0.01	58.07	132.82	0.48	1.85	1.00	0.01

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
58.16	129.01	0.45	1.90	1.00	0.02	58.22	139.47	0.53	1.78	1.00	0.01
58.28	153.22	0.66	1.34	1.00	0.01	58.36	163.77	2.00	0.00	1.00	0.00
58.42	170.51	2.00	0.00	1.00	0.00	58.51	173.13	2.00	0.00	1.00	0.00
58.54	176.07	2.00	0.00	1.00	0.00	58.63	178.66	2.00	0.00	1.00	0.00
58.67	180.71	2.00	0.00	1.00	0.00	58.73	182.54	2.00	0.00	1.00	0.00
58.82	186.11	2.00	0.00	1.00	0.00	58.86	190.71	2.00	0.00	1.00	0.00
58.93	194.19	2.00	0.00	1.00	0.00	58.99	196.80	2.00	0.00	1.00	0.00
59.06	197.95	2.00	0.00	1.00	0.00	59.12	194.81	2.00	0.00	1.00	0.00
59.23	192.62	2.00	0.00	1.00	0.00	59.27	191.87	2.00	0.00	1.00	0.00
59.35	194.32	2.00	0.00	1.00	0.00	59.39	192.66	2.00	0.00	1.00	0.00
59.46	183.02	1.05	0.50	1.00	0.00	59.53	168.20	0.84	0.95	1.00	0.01
59.60	154.58	0.68	1.32	1.00	0.01	59.65	143.98	0.58	1.73	1.00	0.01
59.75	140.67	0.55	1.77	1.00	0.02	59.78	141.40	0.55	1.76	1.00	0.01
59.85	144.51	0.58	1.73	1.00	0.01	59.93	148.57	0.62	1.71	1.00	0.02
59.98	151.37	0.65	1.36	1.00	0.01	60.06	152.70	2.00	0.00	1.00	0.00
60.11	152.75	2.00	0.00	1.00	0.00	60.17	153.07	2.00	0.00	1.00	0.00
60.24	154.23	2.00	0.00	1.00	0.00	60.32	156.31	2.00	0.00	1.00	0.00
60.38	159.33	2.00	0.00	1.00	0.00	60.43	162.68	2.00	0.00	1.00	0.00
60.51	165.36	2.00	0.00	1.00	0.00	60.59	167.37	2.00	0.00	1.00	0.00
60.64	169.31	2.00	0.00	1.00	0.00	60.71	172.63	2.00	0.00	1.00	0.00
60.78	176.99	2.00	0.00	1.00	0.00	60.83	180.90	2.00	0.00	1.00	0.00
60.91	183.57	2.00	0.00	1.00	0.00	60.98	185.88	2.00	0.00	1.00	0.00
61.03	187.55	2.00	0.00	1.00	0.00	61.10	189.38	2.00	0.00	1.00	0.00
61.16	189.82	2.00	0.00	1.00	0.00	61.25	187.55	2.00	0.00	1.00	0.00
61.31	182.43	2.00	0.00	1.00	0.00	61.36	175.02	2.00	0.00	1.00	0.00
61.43	167.69	2.00	0.00	1.00	0.00	61.49	163.85	2.00	0.00	1.00	0.00
61.55	160.29	2.00	0.00	1.00	0.00	61.67	158.54	2.00	0.00	1.00	0.00
61.69	154.27	2.00	0.00	1.00	0.00	61.75	151.01	2.00	0.00	1.00	0.00
61.82	144.01	2.00	0.00	1.00	0.00	61.89	146.86	2.00	0.00	1.00	0.00
61.95	161.54	2.00	0.00	1.00	0.00	62.02	179.27	2.00	0.00	1.00	0.00
62.11	195.75	2.00	0.00	1.00	0.00	62.15	208.74	2.00	0.00	1.00	0.00
62.22	215.35	2.00	0.00	1.00	0.00	62.29	218.48	2.00	0.00	1.00	0.00
62.34	216.83	2.00	0.00	1.00	0.00	62.40	210.40	2.00	0.00	1.00	0.00
62.51	201.86	2.00	0.00	1.00	0.00	62.56	191.63	2.00	0.00	1.00	0.00
62.62	184.95	2.00	0.00	1.00	0.00	62.69	180.64	2.00	0.00	1.00	0.00
62.73	177.46	2.00	0.00	1.00	0.00	62.82	174.68	2.00	0.00	1.00	0.00
62.87	168.62	2.00	0.00	1.00	0.00	62.96	162.90	2.00	0.00	1.00	0.00
63.00	157.98	2.00	0.00	1.00	0.00	63.09	156.60	2.00	0.00	1.00	0.00
63.13	146.39	2.00	0.00	1.00	0.00	63.19	137.15	2.00	0.00	1.00	0.00
63.26	111.49	2.00	0.00	1.00	0.00	63.33	87.95	2.00	0.00	1.00	0.00
63.40	87.10	2.00	0.00	1.00	0.00	63.47	93.74	2.00	0.00	1.00	0.00
63.52	105.89	2.00	0.00	1.00	0.00	63.59	118.81	2.00	0.00	1.00	0.00
63.66	124.21	2.00	0.00	1.00	0.00	63.72	127.09	2.00	0.00	1.00	0.00
63.80	126.30	2.00	0.00	1.00	0.00	63.89	126.70	2.00	0.00	1.00	0.00
63.92	125.45	2.00	0.00	1.00	0.00	64.00	124.66	2.00	0.00	1.00	0.00
64.06	121.33	2.00	0.00	1.00	0.00	64.15	117.34	2.00	0.00	1.00	0.00
64.19	115.25	2.00	0.00	1.00	0.00	64.24	116.74	2.00	0.00	1.00	0.00
64.34	117.57	2.00	0.00	1.00	0.00	64.39	124.94	2.00	0.00	1.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
64.46	131.98	2.00	0.00	1.00	0.00	64.51	140.27	2.00	0.00	1.00	0.00
64.61	146.01	2.00	0.00	1.00	0.00	64.64	150.78	2.00	0.00	1.00	0.00
64.73	158.11	2.00	0.00	1.00	0.00	64.77	162.45	2.00	0.00	1.00	0.00
64.87	166.96	2.00	0.00	1.00	0.00	64.90	170.86	2.00	0.00	1.00	0.00
64.97	171.18	2.00	0.00	1.00	0.00	65.04	169.81	2.00	0.00	1.00	0.00
65.10	166.06	2.00	0.00	1.00	0.00	65.16	161.96	2.00	0.00	1.00	0.00
65.25	153.55	2.00	0.00	1.00	0.00	65.30	158.12	2.00	0.00	1.00	0.00
65.36	156.10	2.00	0.00	1.00	0.00	65.44	152.60	2.00	0.00	1.00	0.00
65.49	143.82	2.00	0.00	1.00	0.00	65.55	143.08	2.00	0.00	1.00	0.00
65.62	144.99	2.00	0.00	1.00	0.00	65.71	147.30	2.00	0.00	1.00	0.00
65.75	150.37	2.00	0.00	1.00	0.00	65.83	153.23	2.00	0.00	1.00	0.00
65.89	157.28	2.00	0.00	1.00	0.00	65.98	167.29	2.00	0.00	1.00	0.00
66.02	170.65	2.00	0.00	1.00	0.00	66.08	172.33	2.00	0.00	1.00	0.00
66.16	173.37	2.00	0.00	1.00	0.00	66.24	173.76	2.00	0.00	1.00	0.00
66.28	173.53	2.00	0.00	1.00	0.00	66.37	171.82	2.00	0.00	1.00	0.00
66.45	169.69	2.00	0.00	1.00	0.00	66.48	166.07	2.00	0.00	1.00	0.00
66.56	163.14	2.00	0.00	1.00	0.00	66.61	153.85	2.00	0.00	1.00	0.00
66.69	151.31	2.00	0.00	1.00	0.00	66.73	145.66	2.00	0.00	1.00	0.00
66.81	139.10	2.00	0.00	1.00	0.00	66.86	136.65	2.00	0.00	1.00	0.00
66.96	136.68	2.00	0.00	1.00	0.00	67.00	139.21	2.00	0.00	1.00	0.00
67.11	138.71	2.00	0.00	1.00	0.00	67.14	138.06	2.00	0.00	1.00	0.00
67.21	135.96	2.00	0.00	1.00	0.00	67.26	135.34	2.00	0.00	1.00	0.00
67.36	137.26	2.00	0.00	1.00	0.00	67.40	140.47	2.00	0.00	1.00	0.00
67.49	143.06	2.00	0.00	1.00	0.00	67.58	143.88	2.00	0.00	1.00	0.00
67.59	141.97	2.00	0.00	1.00	0.00	67.66	131.47	2.00	0.00	1.00	0.00
67.76	106.78	2.00	0.00	1.00	0.00	67.80	89.33	2.00	0.00	1.00	0.00
67.88	86.99	2.00	0.00	1.00	0.00	67.94	91.29	2.00	0.00	1.00	0.00
68.02	96.04	2.00	0.00	1.00	0.00	68.10	100.35	2.00	0.00	1.00	0.00
68.12	106.65	2.00	0.00	1.00	0.00	68.18	114.83	2.00	0.00	1.00	0.00
68.25	125.23	2.00	0.00	1.00	0.00	68.33	131.98	2.00	0.00	1.00	0.00
68.39	133.33	2.00	0.00	1.00	0.00	68.45	134.33	2.00	0.00	1.00	0.00
68.52	149.25	2.00	0.00	1.00	0.00	68.58	172.03	2.00	0.00	1.00	0.00
68.66	177.71	2.00	0.00	1.00	0.00	68.72	175.84	2.00	0.00	1.00	0.00
68.79	177.08	2.00	0.00	1.00	0.00	68.84	180.96	2.00	0.00	1.00	0.00
68.91	184.52	2.00	0.00	1.00	0.00	68.97	180.56	2.00	0.00	1.00	0.00
69.04	181.27	2.00	0.00	1.00	0.00	69.10	180.96	2.00	0.00	1.00	0.00
69.19	180.69	2.00	0.00	1.00	0.00	69.23	183.93	2.00	0.00	1.00	0.00
69.30	190.12	2.00	0.00	1.00	0.00	69.36	198.03	2.00	0.00	1.00	0.00
69.42	203.53	2.00	0.00	1.00	0.00	69.49	208.71	2.00	0.00	1.00	0.00
69.59	209.02	2.00	0.00	1.00	0.00	69.64	198.62	2.00	0.00	1.00	0.00
69.72	195.28	2.00	0.00	1.00	0.00	69.77	196.09	2.00	0.00	1.00	0.00
69.85	191.47	2.00	0.00	1.00	0.00	69.89	184.95	2.00	0.00	1.00	0.00
69.97	176.13	2.00	0.00	1.00	0.00	70.05	170.08	2.00	0.00	1.00	0.00
70.09	164.79	2.00	0.00	1.00	0.00	70.15	160.95	2.00	0.00	1.00	0.00
70.22	154.89	2.00	0.00	1.00	0.00	70.30	154.65	2.00	0.00	1.00	0.00
70.35	155.49	2.00	0.00	1.00	0.00	70.41	139.62	2.00	0.00	1.00	0.00
70.48	127.66	2.00	0.00	1.00	0.00	70.55	129.54	2.00	0.00	1.00	0.00
70.61	135.94	2.00	0.00	1.00	0.00	70.67	148.72	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
70.76	163.67	2.00	0.00	1.00	0.00	70.80	172.06	2.00	0.00	1.00	0.00
70.88	163.67	2.00	0.00	1.00	0.00	70.94	149.63	2.00	0.00	1.00	0.00
71.01	138.14	2.00	0.00	1.00	0.00	71.07	143.17	2.00	0.00	1.00	0.00
71.13	149.88	2.00	0.00	1.00	0.00	71.20	153.08	2.00	0.00	1.00	0.00
71.27	143.35	2.00	0.00	1.00	0.00	71.35	133.54	2.00	0.00	1.00	0.00
71.42	126.28	2.00	0.00	1.00	0.00	71.47	121.50	2.00	0.00	1.00	0.00
71.54	118.06	2.00	0.00	1.00	0.00	71.60	115.04	2.00	0.00	1.00	0.00
71.66	113.65	2.00	0.00	1.00	0.00	71.73	114.17	2.00	0.00	1.00	0.00
71.80	114.85	2.00	0.00	1.00	0.00	71.88	115.49	2.00	0.00	1.00	0.00
71.92	113.84	2.00	0.00	1.00	0.00	71.99	111.85	2.00	0.00	1.00	0.00
72.06	110.61	2.00	0.00	1.00	0.00	72.11	118.57	2.00	0.00	1.00	0.00
72.21	131.52	2.00	0.00	1.00	0.00	72.25	146.62	2.00	0.00	1.00	0.00
72.33	151.51	2.00	0.00	1.00	0.00	72.38	151.13	2.00	0.00	1.00	0.00
72.45	152.18	2.00	0.00	1.00	0.00	72.52	158.95	2.00	0.00	1.00	0.00
72.61	166.05	2.00	0.00	1.00	0.00	72.65	164.98	2.00	0.00	1.00	0.00
72.70	154.26	2.00	0.00	1.00	0.00	72.78	141.49	2.00	0.00	1.00	0.00
72.85	130.28	2.00	0.00	1.00	0.00	72.92	126.30	2.00	0.00	1.00	0.00
73.01	124.96	2.00	0.00	1.00	0.00	73.05	125.99	2.00	0.00	1.00	0.00
73.10	126.43	2.00	0.00	1.00	0.00	73.18	125.65	2.00	0.00	1.00	0.00
73.25	124.21	2.00	0.00	1.00	0.00	73.32	122.87	2.00	0.00	1.00	0.00
73.36	121.24	2.00	0.00	1.00	0.00	73.45	120.65	2.00	0.00	1.00	0.00
73.50	121.74	2.00	0.00	1.00	0.00	73.56	128.06	2.00	0.00	1.00	0.00
73.65	135.46	2.00	0.00	1.00	0.00	73.69	144.45	2.00	0.00	1.00	0.00
73.78	149.82	2.00	0.00	1.00	0.00	73.82	153.80	2.00	0.00	1.00	0.00
73.92	154.54	2.00	0.00	1.00	0.00	73.96	153.97	2.00	0.00	1.00	0.00
74.04	152.26	2.00	0.00	1.00	0.00	74.09	149.02	2.00	0.00	1.00	0.00
74.16	145.25	2.00	0.00	1.00	0.00	74.21	140.66	2.00	0.00	1.00	0.00
74.31	137.39	2.00	0.00	1.00	0.00	74.35	134.15	2.00	0.00	1.00	0.00
74.45	131.56	2.00	0.00	1.00	0.00	74.49	127.88	2.00	0.00	1.00	0.00
74.58	126.54	2.00	0.00	1.00	0.00	74.63	126.48	2.00	0.00	1.00	0.00
74.70	128.42	2.00	0.00	1.00	0.00	74.75	129.72	2.00	0.00	1.00	0.00
74.83	102.36	2.00	0.00	1.00	0.00	74.87	70.20	2.00	0.00	1.00	0.00
74.93	-1.00	2.00	0.00	1.00	0.00	75.02	-1.00	2.00	0.00	1.00	0.00
75.08	-1.00	2.00	0.00	1.00	0.00	75.13	-1.00	2.00	0.00	1.00	0.00
75.21	-1.00	2.00	0.00	1.00	0.00						

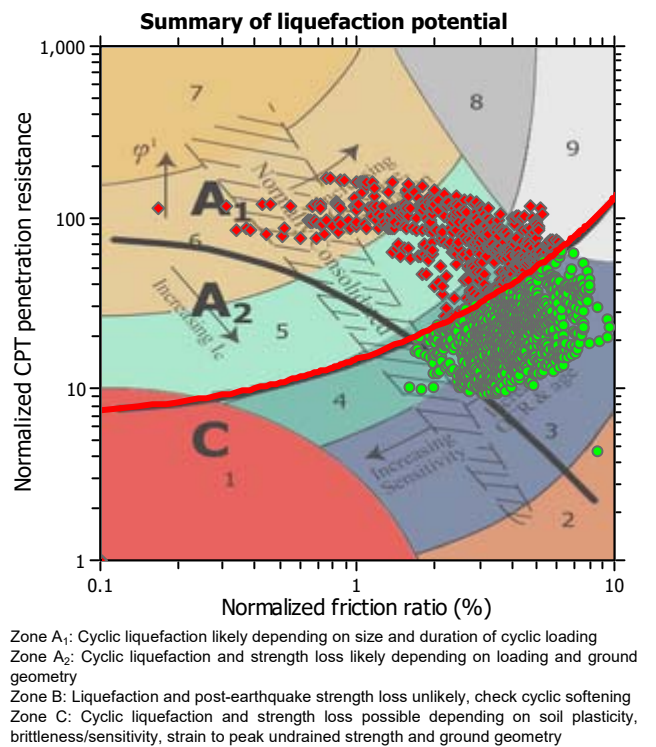
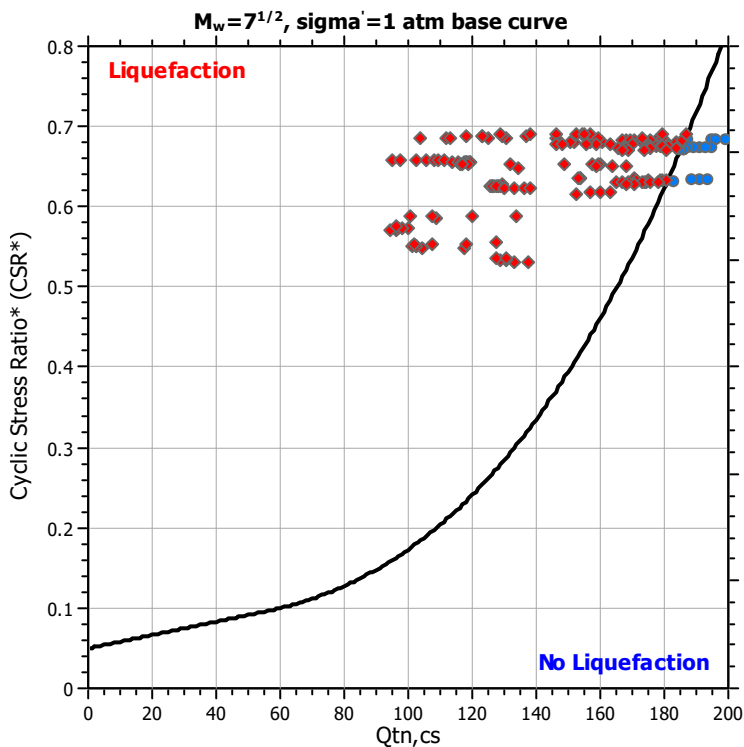
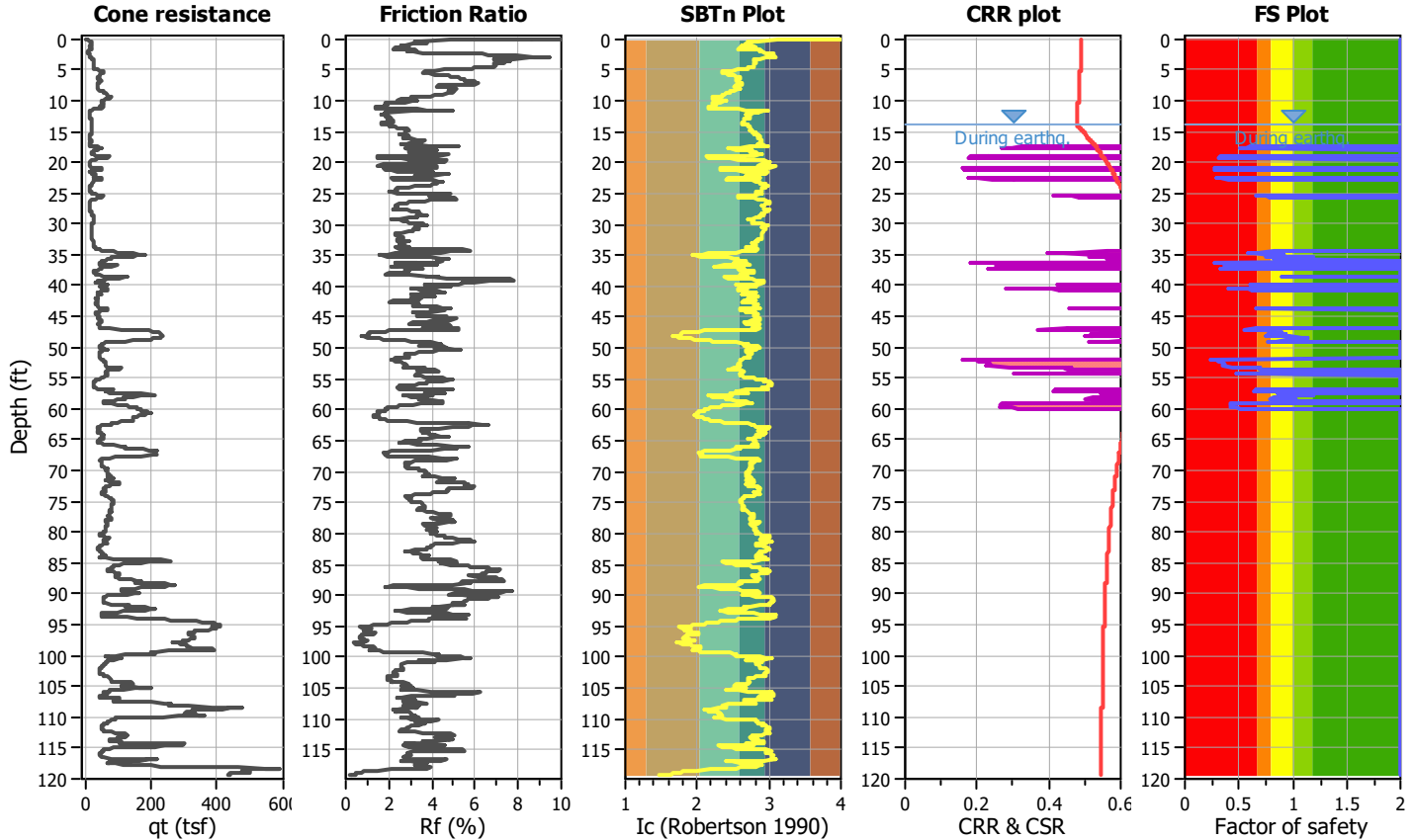
**Total estimated settlement: 2.97**

**Abbreviations**

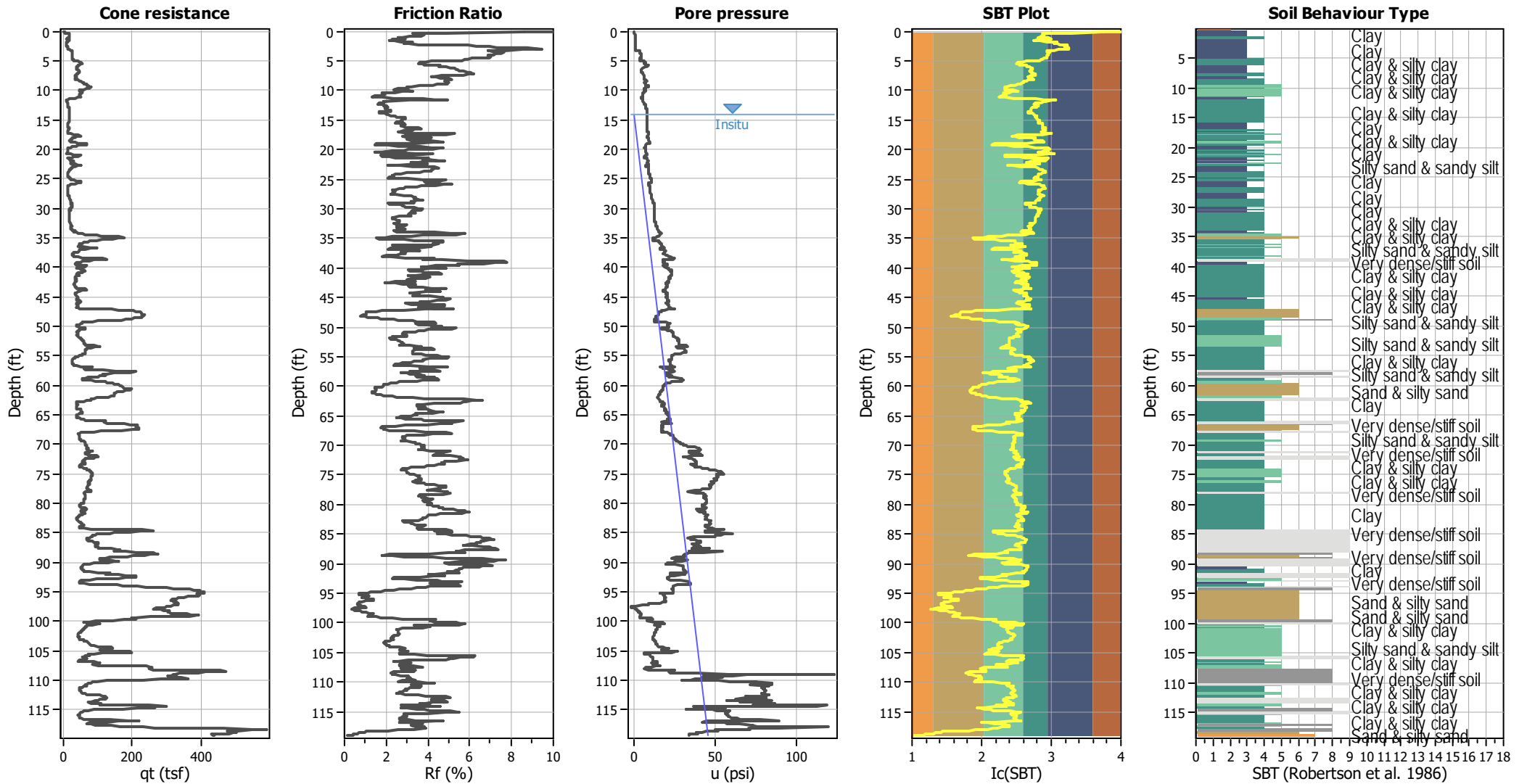
- Q<sub>tn,cs</sub>: Equivalent clean sand normalized cone resistance
- FS: Factor of safety against liquefaction
- e<sub>v</sub> (%): Post-liquefaction volumetric strain
- DF: e<sub>v</sub> depth weighting factor
- Settlement: Calculated settlement

**LIQUEFACTION ANALYSIS REPORT**
**Project title : 8339 W 3rd Street, Los Angeles**
**Location : 8339 W 3rd Street, Los Angeles**
**CPT file : CPT-2**
**Input parameters and analysis data**

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	14.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	14.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	60.00 ft
Earthquake magnitude $M_w$ :	6.78	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.98	Unit weight calculation:	Based on SBT	$K_0$ applied:	Yes		



### CPT basic interpretation plots



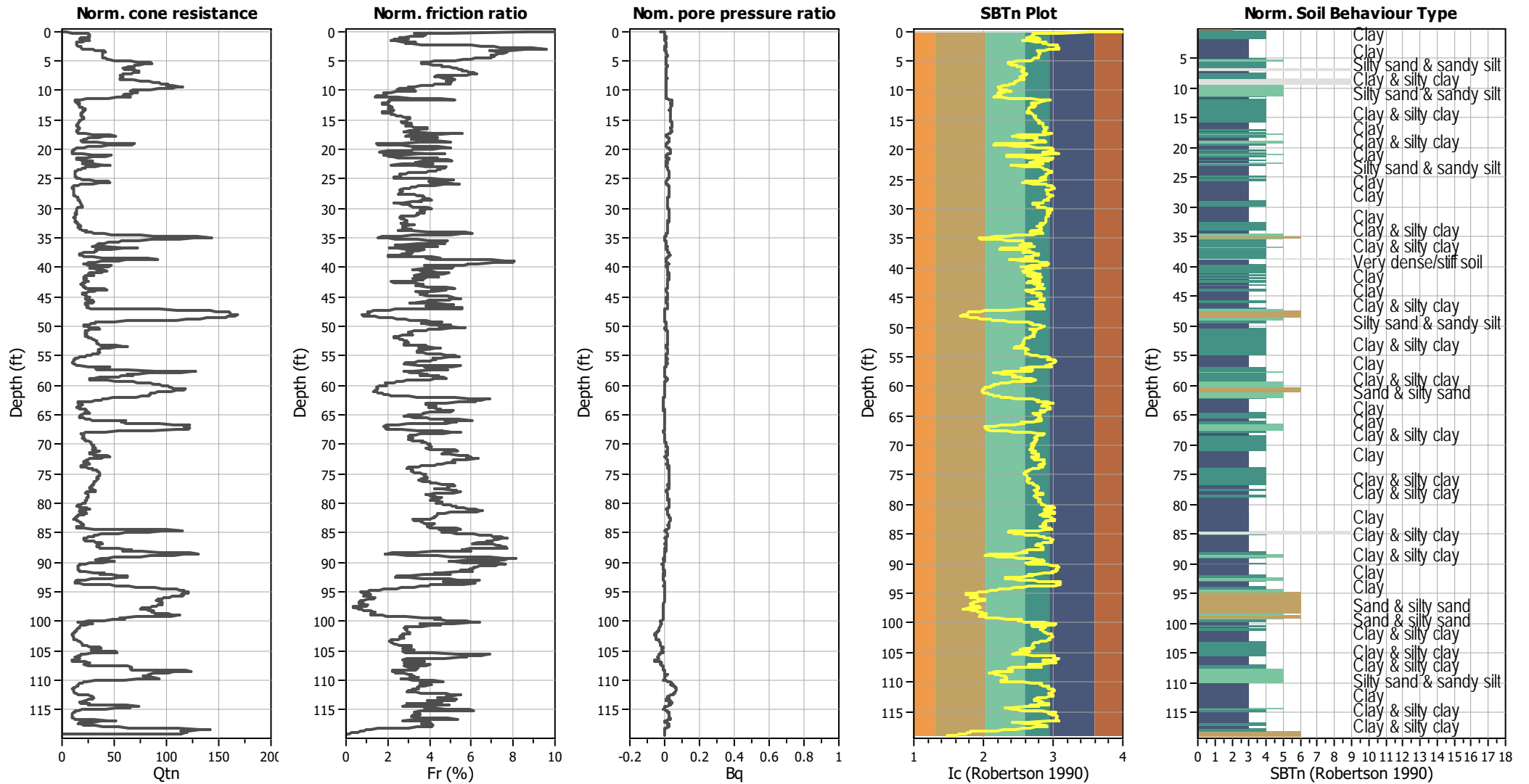
#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>o</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

#### SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

### CPT basic interpretation plots (normalized)



#### Input parameters and analysis data

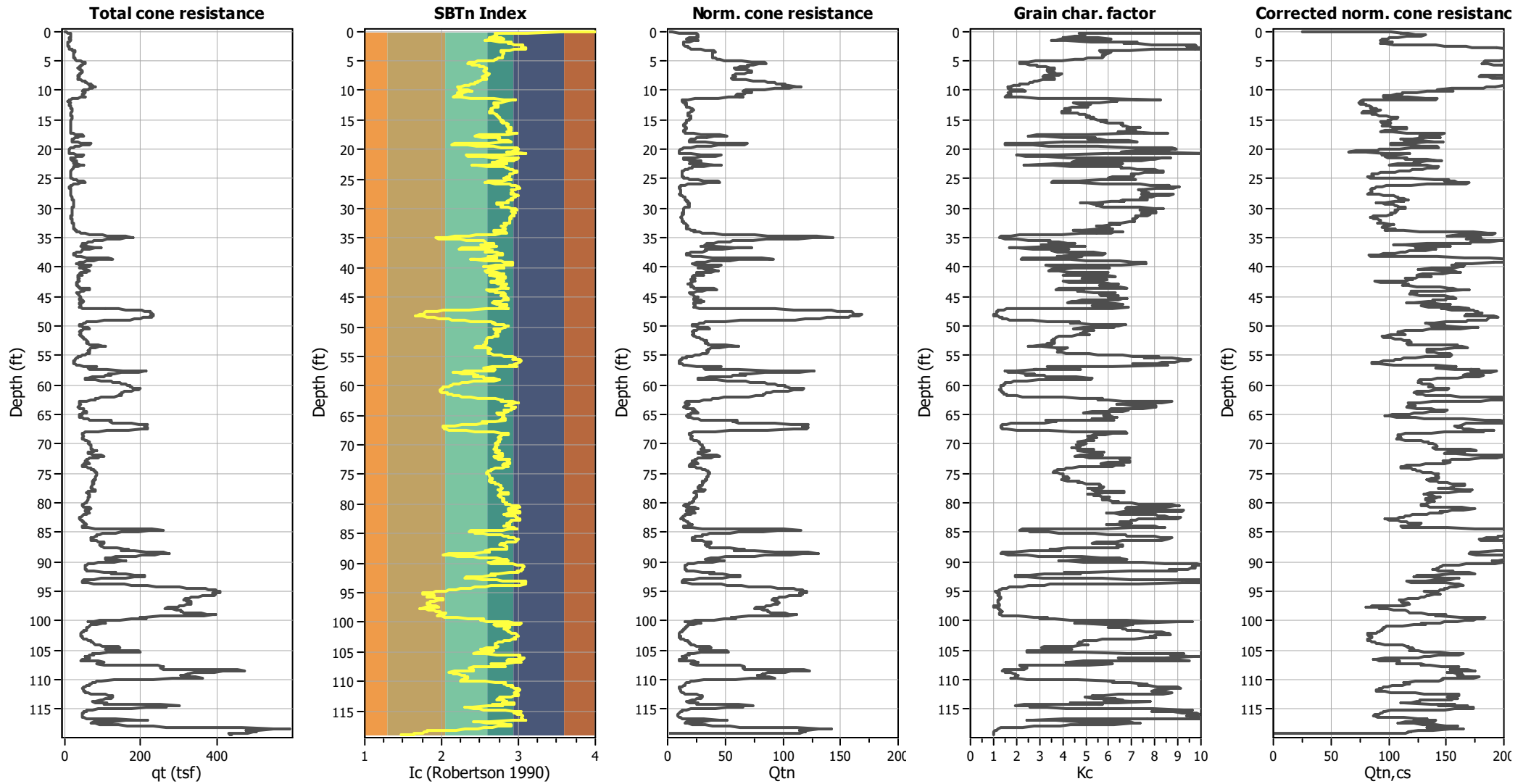
Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>o</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

#### SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained



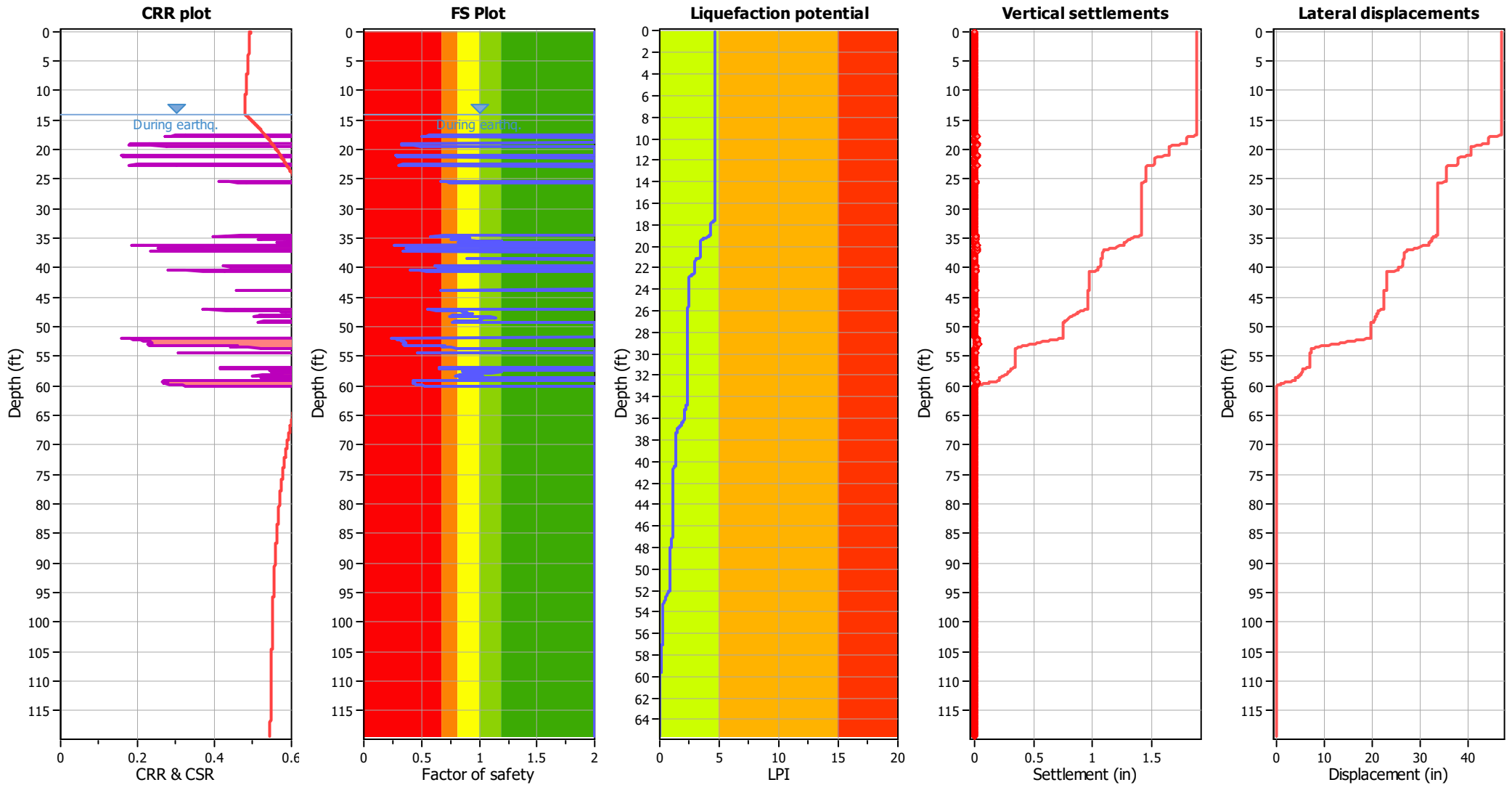
### Liquefaction analysis overall plots (intermediate results)



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>c</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

### Liquefaction analysis overall plots



**Input parameters and analysis data**

Analysis method:	NCEER (1998)	Depth to water table (earthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	$K_{\sigma}$ applied:	Yes
Earthquake magnitude $M_w$ :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

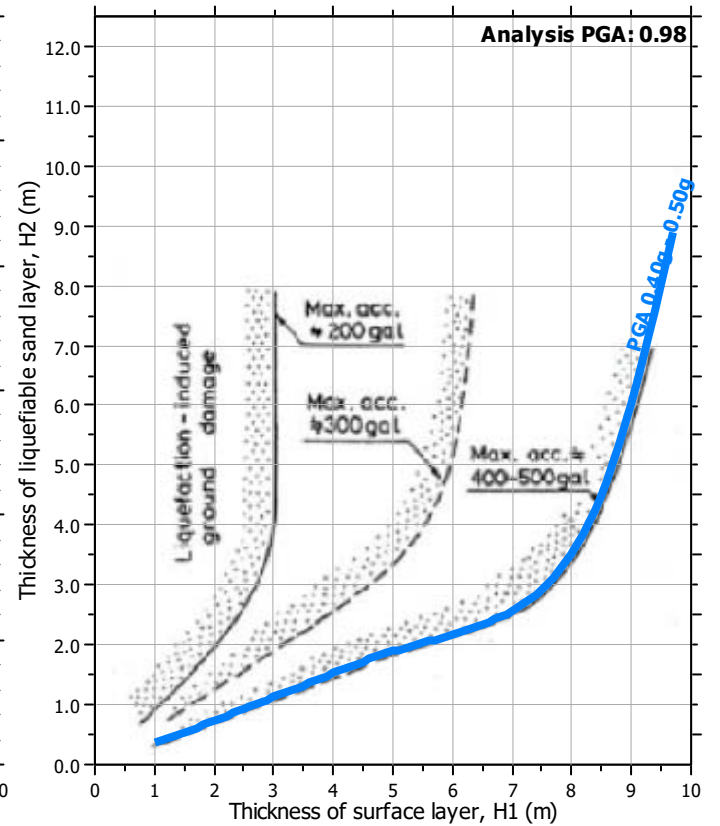
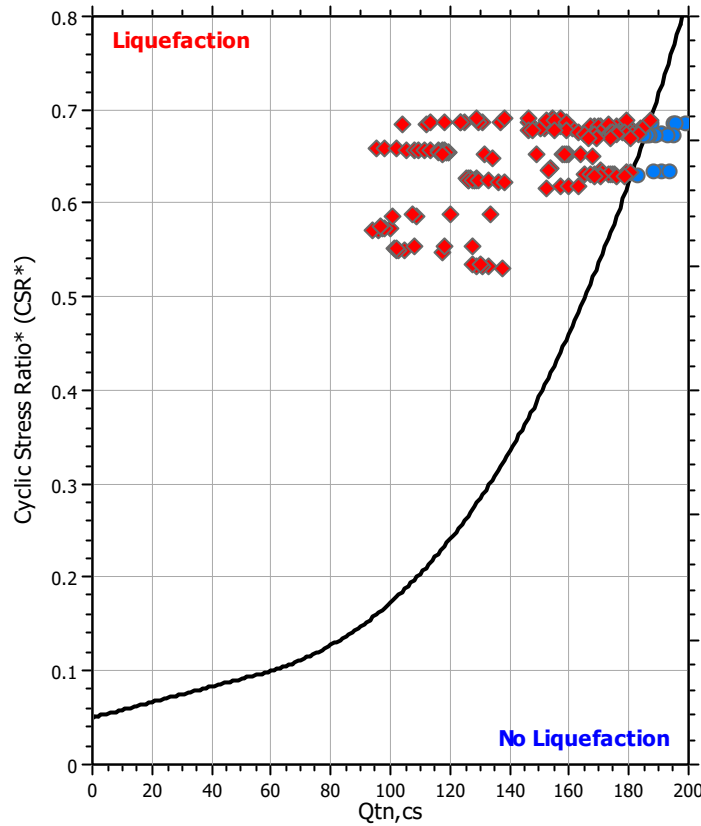
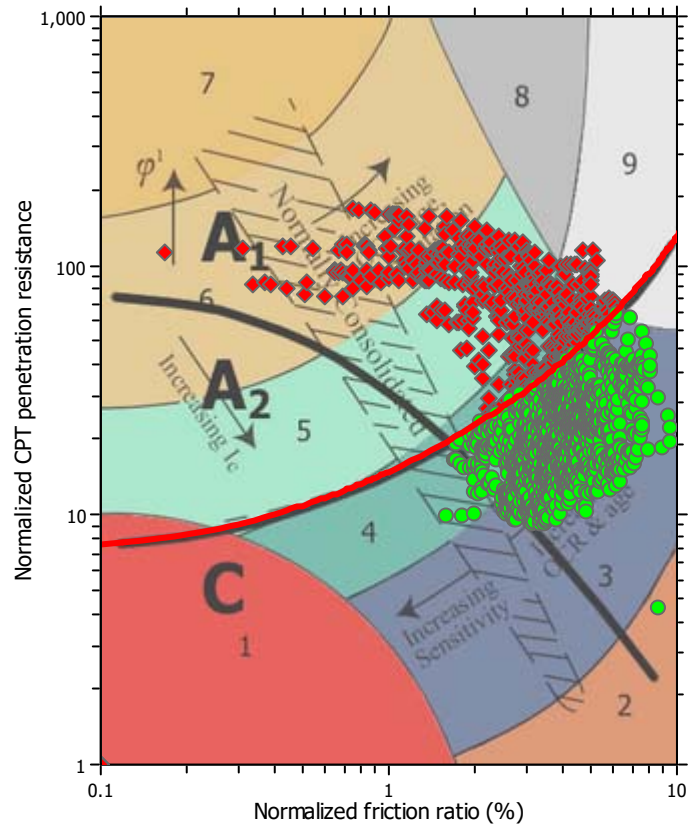
**F.S. color scheme**

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

**LPI color scheme**

- Very high risk
- High risk
- Low risk

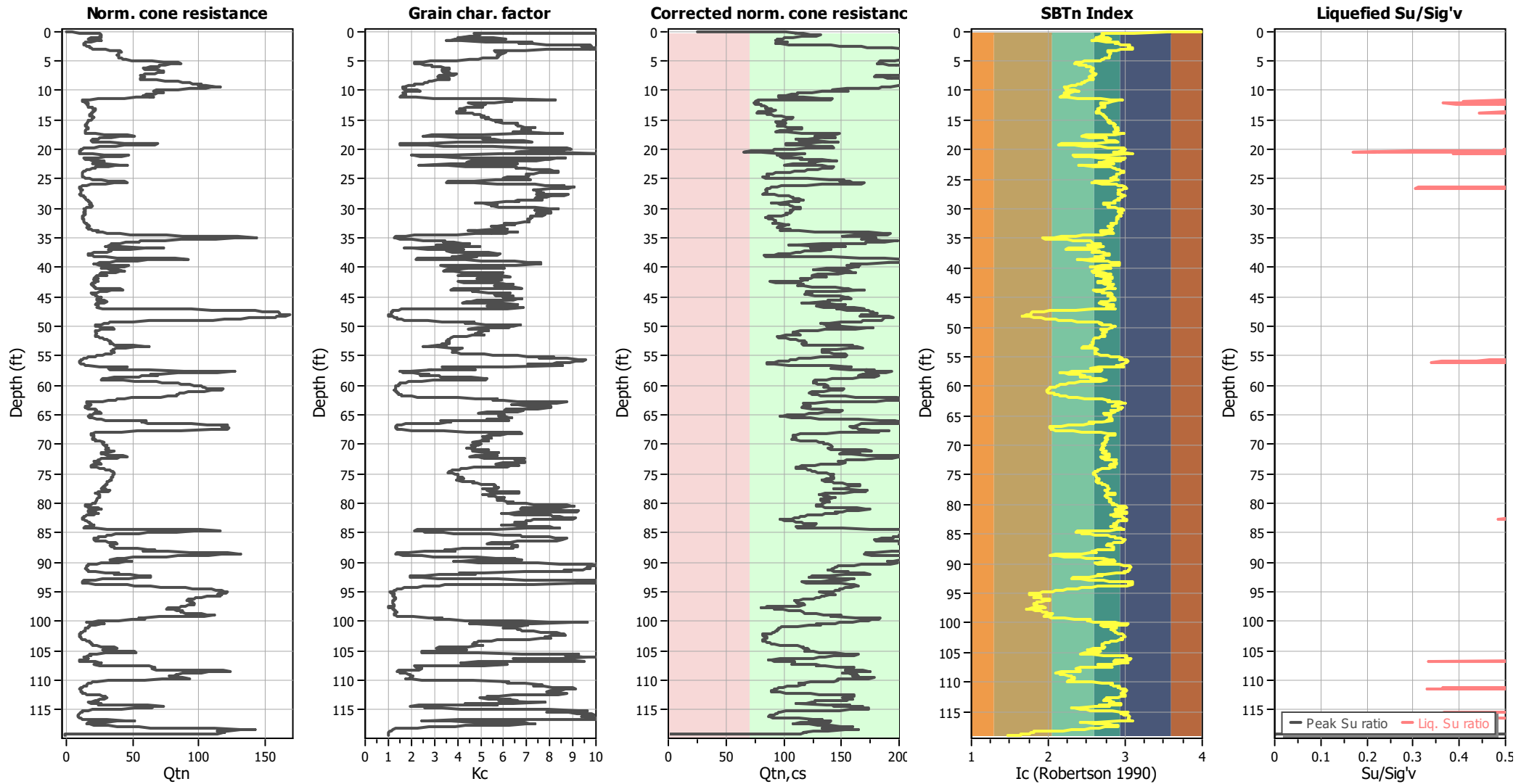
### Liquefaction analysis summary plots



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>0</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

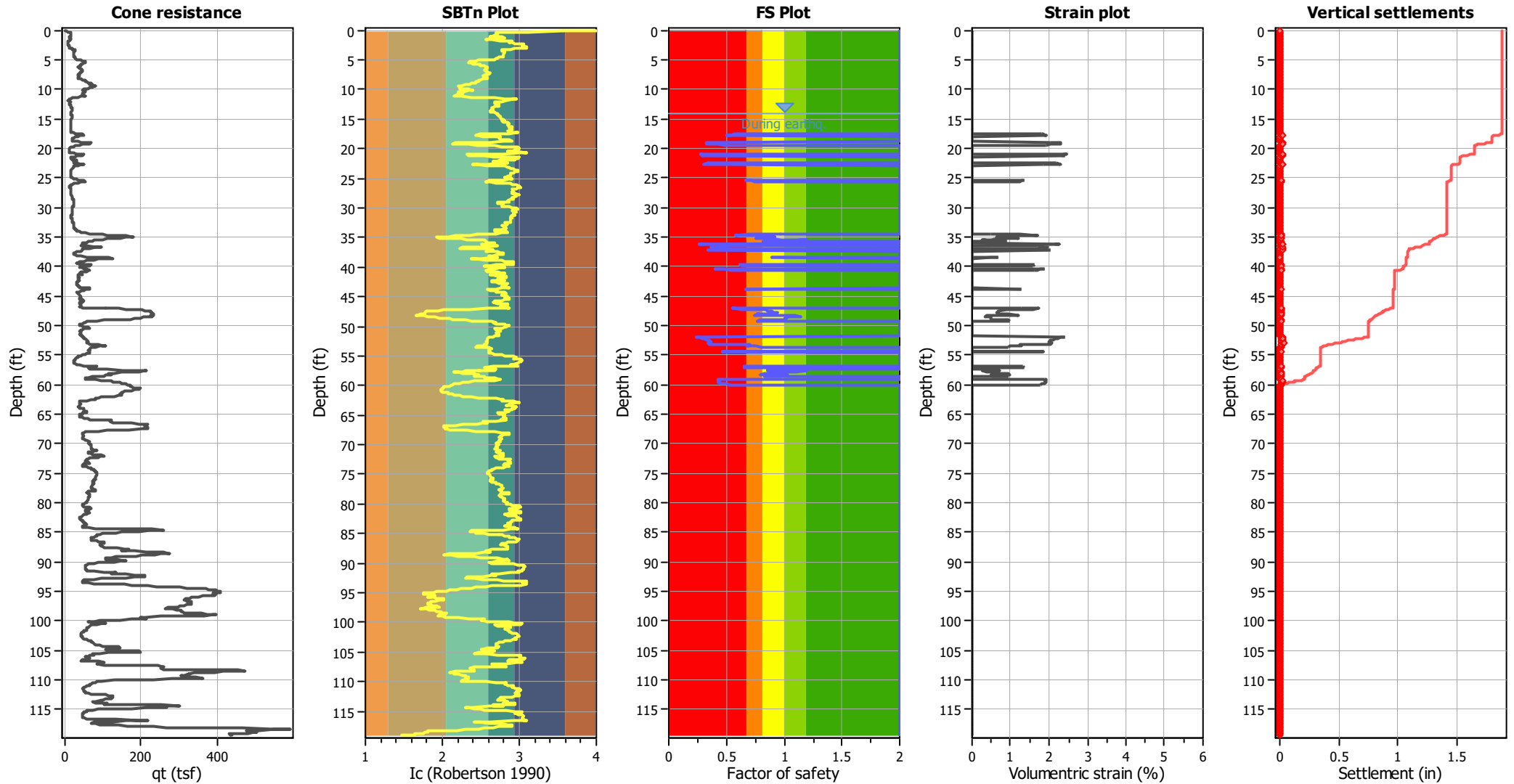
### Check for strength loss plots (Robertson (2010))



#### Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K <sub>c</sub> applied:	Yes
Earthquake magnitude M <sub>w</sub> :	6.78	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.98	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

### Estimation of post-earthquake settlements



**Abbreviations**

- q<sub>c</sub>: Total cone resistance (cone resistance q<sub>c</sub> corrected for pore water effects)
- I<sub>c</sub>: Soil Behaviour Type Index
- FS: Calculated Factor of Safety against liquefaction
- Volumetric strain: Post-liquefaction volumetric strain

:: Post-earthquake settlement due to soil liquefaction ::											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
14.08	85.90	2.00	0.00	1.00	0.00	14.13	86.45	2.00	0.00	1.00	0.00
14.17	89.10	2.00	0.00	1.00	0.00	14.26	91.70	2.00	0.00	1.00	0.00
14.31	93.88	2.00	0.00	1.00	0.00	14.37	94.69	2.00	0.00	1.00	0.00
14.44	97.76	2.00	0.00	1.00	0.00	14.53	101.44	2.00	0.00	1.00	0.00
14.57	105.47	2.00	0.00	1.00	0.00	14.63	107.48	2.00	0.00	1.00	0.00
14.71	108.14	2.00	0.00	1.00	0.00	14.78	106.86	2.00	0.00	1.00	0.00
14.85	105.01	2.00	0.00	1.00	0.00	14.90	103.43	2.00	0.00	1.00	0.00
14.98	102.35	2.00	0.00	1.00	0.00	15.03	101.14	2.00	0.00	1.00	0.00
15.12	99.82	2.00	0.00	1.00	0.00	15.18	99.60	2.00	0.00	1.00	0.00
15.23	100.23	2.00	0.00	1.00	0.00	15.29	98.88	2.00	0.00	1.00	0.00
15.36	94.83	2.00	0.00	1.00	0.00	15.43	93.01	2.00	0.00	1.00	0.00
15.51	94.03	2.00	0.00	1.00	0.00	15.56	99.37	2.00	0.00	1.00	0.00
15.65	101.33	2.00	0.00	1.00	0.00	15.69	101.20	2.00	0.00	1.00	0.00
15.79	98.78	2.00	0.00	1.00	0.00	15.83	96.08	2.00	0.00	1.00	0.00
15.88	95.11	2.00	0.00	1.00	0.00	15.96	94.82	2.00	0.00	1.00	0.00
16.01	96.04	2.00	0.00	1.00	0.00	16.10	97.75	2.00	0.00	1.00	0.00
16.14	100.20	2.00	0.00	1.00	0.00	16.21	102.79	2.00	0.00	1.00	0.00
16.28	107.48	2.00	0.00	1.00	0.00	16.36	112.27	2.00	0.00	1.00	0.00
16.41	115.75	2.00	0.00	1.00	0.00	16.48	115.90	2.00	0.00	1.00	0.00
16.55	113.17	2.00	0.00	1.00	0.00	16.62	110.25	2.00	0.00	1.00	0.00
16.67	108.06	2.00	0.00	1.00	0.00	16.73	105.84	2.00	0.00	1.00	0.00
16.81	101.43	2.00	0.00	1.00	0.00	16.86	96.80	2.00	0.00	1.00	0.00
16.95	93.42	2.00	0.00	1.00	0.00	17.00	93.09	2.00	0.00	1.00	0.00
17.09	93.67	2.00	0.00	1.00	0.00	17.13	102.95	2.00	0.00	1.00	0.00
17.22	115.68	2.00	0.00	1.00	0.00	17.27	134.52	2.00	0.00	1.00	0.00
17.36	145.48	2.00	0.00	1.00	0.00	17.40	149.04	2.00	0.00	1.00	0.00
17.48	144.87	2.00	0.00	1.00	0.00	17.54	137.76	0.61	1.80	1.00	0.01
17.59	132.90	0.56	1.85	1.00	0.01	17.67	130.88	0.54	1.87	1.00	0.02
17.72	128.81	0.52	1.90	1.00	0.01	17.80	127.33	0.51	1.92	1.00	0.02
17.85	130.39	0.53	1.88	1.00	0.01	17.94	137.29	2.00	0.00	1.00	0.00
18.00	144.62	2.00	0.00	1.00	0.00	18.07	144.54	2.00	0.00	1.00	0.00
18.12	132.36	2.00	0.00	1.00	0.00	18.21	121.23	2.00	0.00	1.00	0.00
18.30	111.24	2.00	0.00	1.00	0.00	18.34	113.55	2.00	0.00	1.00	0.00
18.41	113.49	2.00	0.00	1.00	0.00	18.44	113.90	2.00	0.00	1.00	0.00
18.51	118.58	2.00	0.00	1.00	0.00	18.57	128.79	2.00	0.00	1.00	0.00
18.65	139.91	2.00	0.00	1.00	0.00	18.70	146.74	2.00	0.00	1.00	0.00
18.79	145.79	2.00	0.00	1.00	0.00	18.84	133.69	2.00	0.00	1.00	0.00
18.92	117.30	0.42	2.05	1.00	0.02	18.97	104.58	0.34	2.25	1.00	0.01
19.06	102.30	0.33	2.29	1.00	0.03	19.09	102.44	0.33	2.29	1.00	0.01
19.19	101.43	0.32	2.31	1.00	0.03	19.24	102.14	0.32	2.30	1.00	0.01
19.30	107.75	0.36	2.20	1.00	0.02	19.37	118.36	0.42	2.04	1.00	0.02
19.44	127.79	0.49	1.91	1.00	0.02	19.49	137.16	2.00	0.00	1.00	0.00
19.59	142.20	2.00	0.00	1.00	0.00	19.64	143.72	2.00	0.00	1.00	0.00
19.69	137.53	2.00	0.00	1.00	0.00	19.77	129.82	2.00	0.00	1.00	0.00
19.82	119.68	2.00	0.00	1.00	0.00	19.89	109.43	2.00	0.00	1.00	0.00
19.95	100.26	2.00	0.00	1.00	0.00	20.04	94.68	2.00	0.00	1.00	0.00
20.09	91.52	2.00	0.00	1.00	0.00	20.16	90.76	2.00	0.00	1.00	0.00
20.22	89.45	2.00	0.00	1.00	0.00	20.28	80.94	2.00	0.00	1.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
20.35	72.09	2.00	0.00	1.00	0.00	20.44	65.14	2.00	0.00	1.00	0.00
20.49	68.57	2.00	0.00	1.00	0.00	20.54	81.07	2.00	0.00	1.00	0.00
20.63	96.56	2.00	0.00	1.00	0.00	20.68	110.69	2.00	0.00	1.00	0.00
20.74	118.83	2.00	0.00	1.00	0.00	20.80	116.12	2.00	0.00	1.00	0.00
20.88	107.35	2.00	0.00	1.00	0.00	20.95	95.99	0.28	2.42	1.00	0.02
21.00	94.17	0.28	2.45	1.00	0.02	21.08	97.00	0.29	2.40	1.00	0.02
21.13	99.97	0.30	2.34	1.00	0.02	21.20	97.89	0.29	2.38	1.00	0.02
21.27	96.41	0.28	2.41	1.00	0.02	21.36	99.79	2.00	0.00	1.00	0.00
21.40	110.42	2.00	0.00	1.00	0.00	21.46	114.45	2.00	0.00	1.00	0.00
21.53	115.39	2.00	0.00	1.00	0.00	21.59	112.94	2.00	0.00	1.00	0.00
21.67	114.02	2.00	0.00	1.00	0.00	21.72	121.20	2.00	0.00	1.00	0.00
21.80	133.44	2.00	0.00	1.00	0.00	21.89	142.62	2.00	0.00	1.00	0.00
21.92	145.49	2.00	0.00	1.00	0.00	22.00	140.30	2.00	0.00	1.00	0.00
22.07	132.85	2.00	0.00	1.00	0.00	22.11	125.48	2.00	0.00	1.00	0.00
22.20	122.46	2.00	0.00	1.00	0.00	22.25	122.12	2.00	0.00	1.00	0.00
22.32	125.29	2.00	0.00	1.00	0.00	22.39	127.60	2.00	0.00	1.00	0.00
22.47	123.00	2.00	0.00	1.00	0.00	22.52	108.70	0.34	2.18	1.00	0.01
22.59	100.93	0.30	2.32	1.00	0.02	22.65	107.59	0.33	2.20	1.00	0.02
22.74	119.96	0.41	2.01	1.00	0.02	22.79	133.51	0.51	1.84	1.00	0.01
22.85	138.85	2.00	0.00	1.00	0.00	22.91	142.30	2.00	0.00	1.00	0.00
22.98	142.64	2.00	0.00	1.00	0.00	23.06	143.59	2.00	0.00	1.00	0.00
23.11	141.93	2.00	0.00	1.00	0.00	23.18	139.20	2.00	0.00	1.00	0.00
23.24	136.17	2.00	0.00	1.00	0.00	23.30	133.07	2.00	0.00	1.00	0.00
23.37	130.18	2.00	0.00	1.00	0.00	23.45	127.13	2.00	0.00	1.00	0.00
23.52	124.76	2.00	0.00	1.00	0.00	23.56	121.22	2.00	0.00	1.00	0.00
23.65	117.63	2.00	0.00	1.00	0.00	23.69	113.24	2.00	0.00	1.00	0.00
23.76	109.37	2.00	0.00	1.00	0.00	23.83	105.25	2.00	0.00	1.00	0.00
23.89	100.72	2.00	0.00	1.00	0.00	23.96	96.98	2.00	0.00	1.00	0.00
24.02	93.08	2.00	0.00	1.00	0.00	24.10	90.08	2.00	0.00	1.00	0.00
24.16	87.26	2.00	0.00	1.00	0.00	24.23	86.08	2.00	0.00	1.00	0.00
24.32	85.70	2.00	0.00	1.00	0.00	24.36	85.90	2.00	0.00	1.00	0.00
24.41	86.10	2.00	0.00	1.00	0.00	24.49	86.39	2.00	0.00	1.00	0.00
24.55	86.37	2.00	0.00	1.00	0.00	24.61	85.47	2.00	0.00	1.00	0.00
24.67	83.79	2.00	0.00	1.00	0.00	24.77	82.22	2.00	0.00	1.00	0.00
24.81	83.98	2.00	0.00	1.00	0.00	24.89	90.60	2.00	0.00	1.00	0.00
24.95	103.62	2.00	0.00	1.00	0.00	25.01	120.38	2.00	0.00	1.00	0.00
25.08	139.35	2.00	0.00	1.00	0.00	25.17	150.60	2.00	0.00	1.00	0.00
25.21	151.76	2.00	0.00	1.00	0.00	25.29	148.56	2.00	0.00	1.00	0.00
25.35	147.97	2.00	0.00	1.00	0.00	25.40	152.59	0.67	1.35	1.00	0.01
25.49	156.95	0.71	1.30	1.00	0.01	25.53	160.02	0.75	1.26	1.00	0.01
25.62	163.14	0.78	0.99	1.00	0.01	25.66	166.71	2.00	0.00	1.00	0.00
25.73	169.20	2.00	0.00	1.00	0.00	25.80	166.81	2.00	0.00	1.00	0.00
25.89	159.78	2.00	0.00	1.00	0.00	25.92	146.36	2.00	0.00	1.00	0.00
26.02	133.53	2.00	0.00	1.00	0.00	26.07	119.41	2.00	0.00	1.00	0.00
26.14	111.55	2.00	0.00	1.00	0.00	26.20	104.42	2.00	0.00	1.00	0.00
26.25	98.38	2.00	0.00	1.00	0.00	26.34	94.23	2.00	0.00	1.00	0.00
26.39	91.72	2.00	0.00	1.00	0.00	26.48	90.30	2.00	0.00	1.00	0.00
26.51	89.03	2.00	0.00	1.00	0.00	26.61	88.07	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
26.65	87.14	2.00	0.00	1.00	0.00	26.73	85.57	2.00	0.00	1.00	0.00
26.79	84.50	2.00	0.00	1.00	0.00	26.85	84.28	2.00	0.00	1.00	0.00
26.90	84.73	2.00	0.00	1.00	0.00	27.00	85.53	2.00	0.00	1.00	0.00
27.06	85.98	2.00	0.00	1.00	0.00	27.13	86.10	2.00	0.00	1.00	0.00
27.19	85.61	2.00	0.00	1.00	0.00	27.23	84.97	2.00	0.00	1.00	0.00
27.32	84.95	2.00	0.00	1.00	0.00	27.36	84.23	2.00	0.00	1.00	0.00
27.46	83.81	2.00	0.00	1.00	0.00	27.51	81.91	2.00	0.00	1.00	0.00
27.56	83.24	2.00	0.00	1.00	0.00	27.64	86.46	2.00	0.00	1.00	0.00
27.72	91.84	2.00	0.00	1.00	0.00	27.76	95.14	2.00	0.00	1.00	0.00
27.83	98.85	2.00	0.00	1.00	0.00	27.91	101.47	2.00	0.00	1.00	0.00
27.95	104.95	2.00	0.00	1.00	0.00	28.05	106.83	2.00	0.00	1.00	0.00
28.09	108.21	2.00	0.00	1.00	0.00	28.17	108.69	2.00	0.00	1.00	0.00
28.23	108.54	2.00	0.00	1.00	0.00	28.28	108.71	2.00	0.00	1.00	0.00
28.37	110.34	2.00	0.00	1.00	0.00	28.43	113.48	2.00	0.00	1.00	0.00
28.50	115.93	2.00	0.00	1.00	0.00	28.54	116.52	2.00	0.00	1.00	0.00
28.61	114.47	2.00	0.00	1.00	0.00	28.68	112.27	2.00	0.00	1.00	0.00
28.77	110.56	2.00	0.00	1.00	0.00	28.81	111.27	2.00	0.00	1.00	0.00
28.90	112.74	2.00	0.00	1.00	0.00	28.95	105.93	2.00	0.00	1.00	0.00
29.04	97.22	2.00	0.00	1.00	0.00	29.08	88.84	2.00	0.00	1.00	0.00
29.17	90.32	2.00	0.00	1.00	0.00	29.22	94.27	2.00	0.00	1.00	0.00
29.30	97.28	2.00	0.00	1.00	0.00	29.34	101.13	2.00	0.00	1.00	0.00
29.40	103.41	2.00	0.00	1.00	0.00	29.46	104.81	2.00	0.00	1.00	0.00
29.53	105.22	2.00	0.00	1.00	0.00	29.59	106.01	2.00	0.00	1.00	0.00
29.68	107.24	2.00	0.00	1.00	0.00	29.73	108.87	2.00	0.00	1.00	0.00
29.80	110.62	2.00	0.00	1.00	0.00	29.86	112.58	2.00	0.00	1.00	0.00
29.93	113.94	2.00	0.00	1.00	0.00	30.00	113.89	2.00	0.00	1.00	0.00
30.06	112.83	2.00	0.00	1.00	0.00	30.13	111.01	2.00	0.00	1.00	0.00
30.20	108.57	2.00	0.00	1.00	0.00	30.27	107.68	2.00	0.00	1.00	0.00
30.32	106.67	2.00	0.00	1.00	0.00	30.40	106.02	2.00	0.00	1.00	0.00
30.45	105.67	2.00	0.00	1.00	0.00	30.52	105.71	2.00	0.00	1.00	0.00
30.58	106.66	2.00	0.00	1.00	0.00	30.66	106.50	2.00	0.00	1.00	0.00
30.72	105.77	2.00	0.00	1.00	0.00	30.79	104.35	2.00	0.00	1.00	0.00
30.85	102.95	2.00	0.00	1.00	0.00	30.94	102.44	2.00	0.00	1.00	0.00
30.99	102.72	2.00	0.00	1.00	0.00	31.05	102.99	2.00	0.00	1.00	0.00
31.12	103.33	2.00	0.00	1.00	0.00	31.18	101.92	2.00	0.00	1.00	0.00
31.25	97.49	2.00	0.00	1.00	0.00	31.30	91.78	2.00	0.00	1.00	0.00
31.39	87.20	2.00	0.00	1.00	0.00	31.44	85.50	2.00	0.00	1.00	0.00
31.50	84.76	2.00	0.00	1.00	0.00	31.57	85.02	2.00	0.00	1.00	0.00
31.65	85.59	2.00	0.00	1.00	0.00	31.70	86.40	2.00	0.00	1.00	0.00
31.76	87.28	2.00	0.00	1.00	0.00	31.83	88.56	2.00	0.00	1.00	0.00
31.89	90.44	2.00	0.00	1.00	0.00	31.97	92.09	2.00	0.00	1.00	0.00
32.02	93.29	2.00	0.00	1.00	0.00	32.10	93.54	2.00	0.00	1.00	0.00
32.17	93.39	2.00	0.00	1.00	0.00	32.24	93.34	2.00	0.00	1.00	0.00
32.29	93.42	2.00	0.00	1.00	0.00	32.38	92.82	2.00	0.00	1.00	0.00
32.42	91.46	2.00	0.00	1.00	0.00	32.50	90.29	2.00	0.00	1.00	0.00
32.56	91.21	2.00	0.00	1.00	0.00	32.64	95.56	2.00	0.00	1.00	0.00
32.69	101.39	2.00	0.00	1.00	0.00	32.75	104.72	2.00	0.00	1.00	0.00
32.83	103.12	2.00	0.00	1.00	0.00	32.91	99.30	2.00	0.00	1.00	0.00



:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
32.95	96.57	2.00	0.00	1.00	0.00	33.02	96.64	2.00	0.00	1.00	0.00
33.07	96.53	2.00	0.00	1.00	0.00	33.14	95.60	2.00	0.00	1.00	0.00
33.22	94.78	2.00	0.00	1.00	0.00	33.27	94.59	2.00	0.00	1.00	0.00
33.33	96.14	2.00	0.00	1.00	0.00	33.41	99.37	2.00	0.00	1.00	0.00
33.50	103.65	2.00	0.00	1.00	0.00	33.54	105.60	2.00	0.00	1.00	0.00
33.62	102.74	2.00	0.00	1.00	0.00	33.66	97.11	2.00	0.00	1.00	0.00
33.75	96.69	2.00	0.00	1.00	0.00	33.81	101.76	2.00	0.00	1.00	0.00
33.86	112.99	2.00	0.00	1.00	0.00	33.93	127.66	2.00	0.00	1.00	0.00
34.00	142.94	2.00	0.00	1.00	0.00	34.06	159.12	2.00	0.00	1.00	0.00
34.12	173.37	2.00	0.00	1.00	0.00	34.21	185.59	2.00	0.00	1.00	0.00
34.26	192.39	2.00	0.00	1.00	0.00	34.34	192.73	2.00	0.00	1.00	0.00
34.39	189.32	2.00	0.00	1.00	0.00	34.47	183.86	0.97	0.50	1.00	0.00
34.52	172.82	0.82	0.91	1.00	0.01	34.59	160.87	0.69	1.25	1.00	0.01
34.66	151.91	0.60	1.66	1.00	0.01	34.72	150.35	0.58	1.68	1.00	0.01
34.79	157.17	0.65	1.58	1.00	0.01	34.88	168.19	0.77	0.95	1.00	0.01
34.92	178.64	0.89	0.66	1.00	0.00	34.98	180.03	0.91	0.66	1.00	0.00
35.06	177.28	0.88	0.67	1.00	0.01	35.11	170.43	0.79	0.93	1.00	0.01
35.20	166.80	0.75	1.19	1.00	0.01	35.24	169.61	0.78	0.94	1.00	0.00
35.33	175.53	0.85	0.68	1.00	0.01	35.38	185.48	0.99	0.50	1.00	0.00
35.47	195.22	1.13	0.36	1.00	0.00	35.50	199.29	1.19	0.25	1.00	0.00
35.60	196.03	1.14	0.36	1.00	0.00	35.65	187.73	1.02	0.49	1.00	0.00
35.72	179.22	0.90	0.66	1.00	0.01	35.78	173.25	0.82	0.91	1.00	0.01
35.84	170.75	2.00	0.00	1.00	0.00	35.91	170.78	2.00	0.00	1.00	0.00
35.96	168.64	2.00	0.00	1.00	0.00	36.05	157.61	2.00	0.00	1.00	0.00
36.09	133.33	2.00	0.00	1.00	0.00	36.17	111.76	0.31	2.13	1.00	0.02
36.23	103.93	0.27	2.26	1.00	0.02	36.32	113.12	0.31	2.11	1.00	0.02
36.36	129.68	2.00	0.00	1.00	0.00	36.43	144.52	2.00	0.00	1.00	0.00
36.48	152.87	2.00	0.00	1.00	0.00	36.55	146.07	0.54	1.71	1.00	0.01
36.62	130.76	0.42	1.88	1.00	0.01	36.71	125.08	0.38	1.94	1.00	0.02
36.76	123.20	0.37	1.97	1.00	0.01	36.81	123.22	0.37	1.97	1.00	0.01
36.89	129.48	0.41	1.89	1.00	0.02	36.98	137.07	0.47	1.80	1.00	0.02
37.03	140.77	2.00	0.00	1.00	0.00	37.07	138.98	2.00	0.00	1.00	0.00
37.17	132.39	2.00	0.00	1.00	0.00	37.21	125.19	2.00	0.00	1.00	0.00
37.29	118.00	0.34	2.04	1.00	0.02	37.34	114.89	2.00	0.00	1.00	0.00
37.43	112.42	2.00	0.00	1.00	0.00	37.47	112.95	2.00	0.00	1.00	0.00
37.53	110.38	2.00	0.00	1.00	0.00	37.61	106.06	2.00	0.00	1.00	0.00
37.67	100.33	2.00	0.00	1.00	0.00	37.74	95.59	2.00	0.00	1.00	0.00
37.84	92.04	2.00	0.00	1.00	0.00	37.87	88.96	2.00	0.00	1.00	0.00
37.95	86.32	2.00	0.00	1.00	0.00	38.01	83.07	2.00	0.00	1.00	0.00
38.08	84.70	2.00	0.00	1.00	0.00	38.15	88.47	2.00	0.00	1.00	0.00
38.19	97.56	2.00	0.00	1.00	0.00	38.26	114.02	2.00	0.00	1.00	0.00
38.32	142.77	2.00	0.00	1.00	0.00	38.42	165.51	2.00	0.00	1.00	0.00
38.46	179.32	0.89	0.66	1.00	0.00	38.55	186.96	1.00	0.49	1.00	0.01
38.60	204.49	2.00	0.00	1.00	0.00	38.68	223.71	2.00	0.00	1.00	0.00
38.73	251.77	2.00	0.00	1.00	0.00	38.79	265.94	2.00	0.00	1.00	0.00
38.87	270.32	2.00	0.00	1.00	0.00	38.91	265.10	2.00	0.00	1.00	0.00
38.98	257.43	2.00	0.00	1.00	0.00	39.05	243.89	2.00	0.00	1.00	0.00
39.13	227.48	2.00	0.00	1.00	0.00	39.19	209.65	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
39.24	191.30	2.00	0.00	1.00	0.00	39.32	172.87	2.00	0.00	1.00	0.00
39.40	160.73	2.00	0.00	1.00	0.00	39.45	158.50	2.00	0.00	1.00	0.00
39.50	162.72	2.00	0.00	1.00	0.00	39.58	166.46	2.00	0.00	1.00	0.00
39.64	162.15	2.00	0.00	1.00	0.00	39.72	158.84	2.00	0.00	1.00	0.00
39.77	154.25	0.61	1.62	1.00	0.01	39.85	157.18	0.64	1.58	1.00	0.02
39.90	159.47	2.00	0.00	1.00	0.00	39.97	164.77	2.00	0.00	1.00	0.00
40.04	162.10	2.00	0.00	1.00	0.00	40.12	156.44	2.00	0.00	1.00	0.00
40.17	146.45	2.00	0.00	1.00	0.00	40.26	137.31	2.00	0.00	1.00	0.00
40.31	126.95	2.00	0.00	1.00	0.00	40.36	125.19	2.00	0.00	1.00	0.00
40.43	128.99	0.41	1.90	1.00	0.02	40.49	138.34	0.47	1.79	1.00	0.01
40.56	146.17	0.54	1.71	1.00	0.02	40.64	152.46	0.59	1.65	1.00	0.01
40.69	155.10	0.62	1.61	1.00	0.01	40.76	156.71	2.00	0.00	1.00	0.00
40.84	159.79	2.00	0.00	1.00	0.00	40.89	162.01	2.00	0.00	1.00	0.00
40.97	159.60	2.00	0.00	1.00	0.00	41.02	154.05	2.00	0.00	1.00	0.00
41.11	147.23	2.00	0.00	1.00	0.00	41.15	139.89	2.00	0.00	1.00	0.00
41.24	130.07	2.00	0.00	1.00	0.00	41.29	124.19	2.00	0.00	1.00	0.00
41.34	124.63	2.00	0.00	1.00	0.00	41.42	129.91	2.00	0.00	1.00	0.00
41.51	135.21	2.00	0.00	1.00	0.00	41.56	136.99	2.00	0.00	1.00	0.00
41.61	135.38	2.00	0.00	1.00	0.00	41.69	131.54	2.00	0.00	1.00	0.00
41.74	126.17	2.00	0.00	1.00	0.00	41.82	123.58	2.00	0.00	1.00	0.00
41.87	118.62	2.00	0.00	1.00	0.00	41.95	115.24	2.00	0.00	1.00	0.00
42.00	114.85	2.00	0.00	1.00	0.00	42.10	118.14	2.00	0.00	1.00	0.00
42.14	120.43	2.00	0.00	1.00	0.00	42.21	117.84	2.00	0.00	1.00	0.00
42.28	113.88	2.00	0.00	1.00	0.00	42.33	102.11	2.00	0.00	1.00	0.00
42.41	93.82	2.00	0.00	1.00	0.00	42.45	88.53	2.00	0.00	1.00	0.00
42.53	93.27	2.00	0.00	1.00	0.00	42.59	100.18	2.00	0.00	1.00	0.00
42.68	106.35	2.00	0.00	1.00	0.00	42.72	112.59	2.00	0.00	1.00	0.00
42.80	115.13	2.00	0.00	1.00	0.00	42.86	116.79	2.00	0.00	1.00	0.00
42.95	116.38	2.00	0.00	1.00	0.00	42.99	114.28	2.00	0.00	1.00	0.00
43.06	112.34	2.00	0.00	1.00	0.00	43.12	113.60	2.00	0.00	1.00	0.00
43.18	116.58	2.00	0.00	1.00	0.00	43.26	124.10	2.00	0.00	1.00	0.00
43.34	129.90	2.00	0.00	1.00	0.00	43.39	137.75	2.00	0.00	1.00	0.00
43.44	144.54	2.00	0.00	1.00	0.00	43.52	152.47	2.00	0.00	1.00	0.00
43.58	156.11	2.00	0.00	1.00	0.00	43.66	156.09	2.00	0.00	1.00	0.00
43.70	156.39	2.00	0.00	1.00	0.00	43.80	159.24	0.66	1.27	1.00	0.01
43.87	164.69	2.00	0.00	1.00	0.00	43.93	170.40	2.00	0.00	1.00	0.00
43.98	164.48	2.00	0.00	1.00	0.00	44.05	145.86	2.00	0.00	1.00	0.00
44.10	126.12	2.00	0.00	1.00	0.00	44.20	119.76	2.00	0.00	1.00	0.00
44.25	123.96	2.00	0.00	1.00	0.00	44.30	124.67	2.00	0.00	1.00	0.00
44.38	122.09	2.00	0.00	1.00	0.00	44.42	120.05	2.00	0.00	1.00	0.00
44.49	117.85	2.00	0.00	1.00	0.00	44.56	117.71	2.00	0.00	1.00	0.00
44.64	117.74	2.00	0.00	1.00	0.00	44.70	120.18	2.00	0.00	1.00	0.00
44.77	127.21	2.00	0.00	1.00	0.00	44.83	137.68	2.00	0.00	1.00	0.00
44.90	148.00	2.00	0.00	1.00	0.00	44.97	153.24	2.00	0.00	1.00	0.00
45.03	154.39	2.00	0.00	1.00	0.00	45.09	154.14	2.00	0.00	1.00	0.00
45.18	155.88	2.00	0.00	1.00	0.00	45.23	158.58	2.00	0.00	1.00	0.00
45.28	159.10	2.00	0.00	1.00	0.00	45.35	154.07	2.00	0.00	1.00	0.00
45.41	150.30	2.00	0.00	1.00	0.00	45.49	149.32	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
45.55	148.26	2.00	0.00	1.00	0.00	45.62	143.54	2.00	0.00	1.00	0.00
45.68	138.07	2.00	0.00	1.00	0.00	45.77	137.76	2.00	0.00	1.00	0.00
45.82	139.84	2.00	0.00	1.00	0.00	45.90	134.07	2.00	0.00	1.00	0.00
45.95	122.56	2.00	0.00	1.00	0.00	46.00	115.52	2.00	0.00	1.00	0.00
46.09	120.57	2.00	0.00	1.00	0.00	46.13	136.09	2.00	0.00	1.00	0.00
46.22	146.12	2.00	0.00	1.00	0.00	46.26	152.29	2.00	0.00	1.00	0.00
46.34	153.83	2.00	0.00	1.00	0.00	46.40	152.03	2.00	0.00	1.00	0.00
46.49	149.06	2.00	0.00	1.00	0.00	46.53	140.61	2.00	0.00	1.00	0.00
46.60	133.11	2.00	0.00	1.00	0.00	46.66	128.70	2.00	0.00	1.00	0.00
46.73	134.31	2.00	0.00	1.00	0.00	46.80	147.11	2.00	0.00	1.00	0.00
46.88	161.47	2.00	0.00	1.00	0.00	46.94	170.05	2.00	0.00	1.00	0.00
46.99	158.74	0.67	1.28	1.00	0.01	47.07	146.26	0.55	1.71	1.00	0.02
47.12	147.90	0.56	1.72	1.00	0.01	47.20	155.32	0.63	1.60	1.00	0.01
47.25	163.06	0.71	1.23	1.00	0.01	47.34	170.17	0.80	0.94	1.00	0.01
47.39	174.14	0.84	0.90	1.00	0.01	47.46	174.59	0.85	0.69	1.00	0.01
47.52	174.78	0.85	0.69	1.00	0.00	47.61	175.89	0.87	0.68	1.00	0.01
47.66	177.69	0.89	0.67	1.00	0.00	47.74	178.73	0.90	0.66	1.00	0.01
47.78	180.35	0.93	0.66	1.00	0.00	47.88	181.20	0.94	0.65	1.00	0.01
47.92	179.33	0.91	0.66	1.00	0.00	47.97	167.49	0.77	0.96	1.00	0.01
48.05	167.68	0.77	0.96	1.00	0.01	48.15	168.31	0.78	0.95	1.00	0.01
48.19	165.42	0.74	1.20	1.00	0.01	48.23	175.61	0.87	0.68	1.00	0.00
48.30	183.52	0.97	0.50	1.00	0.00	48.36	191.55	1.09	0.36	1.00	0.00
48.43	195.15	1.15	0.36	1.00	0.00	48.52	193.39	1.12	0.36	1.00	0.00
48.56	189.10	1.05	0.36	1.00	0.00	48.66	187.26	1.03	0.49	1.00	0.01
48.70	186.22	1.01	0.50	1.00	0.00	48.78	185.99	1.01	0.50	1.00	0.00
48.83	186.56	1.02	0.49	1.00	0.00	48.91	185.21	1.00	0.50	1.00	0.00
48.97	180.60	0.94	0.65	1.00	0.00	49.03	173.67	0.85	0.91	1.00	0.01
49.09	168.97	0.79	0.94	1.00	0.01	49.15	166.77	0.76	0.96	1.00	0.01
49.23	166.63	2.00	0.00	1.00	0.00	49.28	160.87	2.00	0.00	1.00	0.00
49.35	150.22	2.00	0.00	1.00	0.00	49.42	139.15	2.00	0.00	1.00	0.00
49.49	132.49	2.00	0.00	1.00	0.00	49.55	133.33	2.00	0.00	1.00	0.00
49.65	137.59	2.00	0.00	1.00	0.00	49.68	143.20	2.00	0.00	1.00	0.00
49.78	146.06	2.00	0.00	1.00	0.00	49.82	148.12	2.00	0.00	1.00	0.00
49.87	142.96	2.00	0.00	1.00	0.00	49.96	136.96	2.00	0.00	1.00	0.00
50.02	138.17	2.00	0.00	1.00	0.00	50.09	149.42	2.00	0.00	1.00	0.00
50.14	164.77	2.00	0.00	1.00	0.00	50.22	175.29	2.00	0.00	1.00	0.00
50.27	177.83	2.00	0.00	1.00	0.00	50.34	172.80	2.00	0.00	1.00	0.00
50.40	162.01	2.00	0.00	1.00	0.00	50.46	152.20	2.00	0.00	1.00	0.00
50.53	142.85	2.00	0.00	1.00	0.00	50.62	135.84	2.00	0.00	1.00	0.00
50.66	129.81	2.00	0.00	1.00	0.00	50.75	125.12	2.00	0.00	1.00	0.00
50.80	119.09	2.00	0.00	1.00	0.00	50.85	113.84	2.00	0.00	1.00	0.00
50.93	109.66	2.00	0.00	1.00	0.00	50.99	108.46	2.00	0.00	1.00	0.00
51.07	108.00	2.00	0.00	1.00	0.00	51.13	108.64	2.00	0.00	1.00	0.00
51.20	109.08	2.00	0.00	1.00	0.00	51.25	110.42	2.00	0.00	1.00	0.00
51.33	111.83	2.00	0.00	1.00	0.00	51.38	113.85	2.00	0.00	1.00	0.00
51.47	112.90	2.00	0.00	1.00	0.00	51.52	107.52	2.00	0.00	1.00	0.00
51.60	101.29	2.00	0.00	1.00	0.00	51.65	97.20	2.00	0.00	1.00	0.00
51.72	96.63	2.00	0.00	1.00	0.00	51.78	95.38	2.00	0.00	1.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
51.84	94.40	2.00	0.00	1.00	0.00	51.91	95.22	0.24	2.43	1.00	0.02
51.98	97.69	0.25	2.38	1.00	0.02	52.04	102.20	0.27	2.30	1.00	0.01
52.14	105.59	0.29	2.23	1.00	0.03	52.18	108.15	0.30	2.19	1.00	0.01
52.24	109.56	0.31	2.17	1.00	0.02	52.31	111.29	0.32	2.14	1.00	0.02
52.36	113.65	0.33	2.10	1.00	0.01	52.44	115.94	0.34	2.07	1.00	0.02
52.50	117.76	0.35	2.04	1.00	0.01	52.58	118.25	0.36	2.04	1.00	0.02
52.63	118.20	0.36	2.04	1.00	0.01	52.71	119.03	0.36	2.03	1.00	0.02
52.76	119.61	0.37	2.02	1.00	0.01	52.89	119.66	0.37	2.02	1.00	0.03
52.96	118.54	0.36	2.03	1.00	0.02	53.03	116.11	0.35	2.07	1.00	0.02
53.11	117.15	0.35	2.05	1.00	0.02	53.17	131.61	0.45	1.87	1.00	0.01
53.24	148.67	0.59	1.71	1.00	0.01	53.31	159.84	0.70	1.26	1.00	0.01
53.35	159.17	0.70	1.27	1.00	0.01	53.44	157.46	0.68	1.29	1.00	0.01
53.48	158.63	0.69	1.28	1.00	0.01	53.55	163.79	0.75	0.99	1.00	0.01
53.61	167.93	0.80	0.95	1.00	0.01	53.68	166.93	2.00	0.00	1.00	0.00
53.74	157.46	2.00	0.00	1.00	0.00	53.83	146.48	2.00	0.00	1.00	0.00
53.89	137.90	2.00	0.00	1.00	0.00	53.95	134.24	2.00	0.00	1.00	0.00
54.05	133.44	2.00	0.00	1.00	0.00	54.08	133.43	2.00	0.00	1.00	0.00
54.14	133.38	2.00	0.00	1.00	0.00	54.23	133.26	2.00	0.00	1.00	0.00
54.27	133.05	2.00	0.00	1.00	0.00	54.37	133.26	2.00	0.00	1.00	0.00
54.41	134.12	0.47	1.84	1.00	0.01	54.49	135.91	2.00	0.00	1.00	0.00
54.54	139.42	2.00	0.00	1.00	0.00	54.62	143.21	2.00	0.00	1.00	0.00
54.67	147.37	2.00	0.00	1.00	0.00	54.73	150.39	2.00	0.00	1.00	0.00
54.81	152.84	2.00	0.00	1.00	0.00	54.86	154.45	2.00	0.00	1.00	0.00
54.94	155.15	2.00	0.00	1.00	0.00	54.99	154.86	2.00	0.00	1.00	0.00
55.08	153.54	2.00	0.00	1.00	0.00	55.12	150.05	2.00	0.00	1.00	0.00
55.22	141.65	2.00	0.00	1.00	0.00	55.30	132.01	2.00	0.00	1.00	0.00
55.36	123.77	2.00	0.00	1.00	0.00	55.39	119.61	2.00	0.00	1.00	0.00
55.48	114.97	2.00	0.00	1.00	0.00	55.53	112.89	2.00	0.00	1.00	0.00
55.62	110.71	2.00	0.00	1.00	0.00	55.66	108.52	2.00	0.00	1.00	0.00
55.72	106.21	2.00	0.00	1.00	0.00	55.80	103.80	2.00	0.00	1.00	0.00
55.85	101.24	2.00	0.00	1.00	0.00	55.91	98.46	2.00	0.00	1.00	0.00
55.99	95.35	2.00	0.00	1.00	0.00	56.04	91.72	2.00	0.00	1.00	0.00
56.12	88.69	2.00	0.00	1.00	0.00	56.17	86.52	2.00	0.00	1.00	0.00
56.24	85.67	2.00	0.00	1.00	0.00	56.30	85.65	2.00	0.00	1.00	0.00
56.39	87.84	2.00	0.00	1.00	0.00	56.44	89.19	2.00	0.00	1.00	0.00
56.52	91.81	2.00	0.00	1.00	0.00	56.57	104.28	2.00	0.00	1.00	0.00
56.66	119.45	2.00	0.00	1.00	0.00	56.71	141.13	2.00	0.00	1.00	0.00
56.78	156.24	2.00	0.00	1.00	0.00	56.83	158.29	2.00	0.00	1.00	0.00
56.91	153.53	0.65	1.34	1.00	0.01	56.96	153.44	0.65	1.34	1.00	0.01
57.03	153.17	0.65	1.34	1.00	0.01	57.09	149.83	2.00	0.00	1.00	0.00
57.16	146.46	2.00	0.00	1.00	0.00	57.22	140.26	2.00	0.00	1.00	0.00
57.29	157.62	2.00	0.00	1.00	0.00	57.38	172.43	2.00	0.00	1.00	0.00
57.42	170.76	0.86	0.71	1.00	0.00	57.51	178.88	0.97	0.51	1.00	0.01
57.55	171.06	0.86	0.71	1.00	0.00	57.61	179.06	0.97	0.51	1.00	0.00
57.68	191.03	1.15	0.26	1.00	0.00	57.75	193.69	1.19	0.26	1.00	0.00
57.82	188.49	1.11	0.37	1.00	0.00	57.89	180.54	0.99	0.51	1.00	0.00
57.97	174.90	0.91	0.69	1.00	0.01	58.02	174.41	0.91	0.69	1.00	0.00
58.11	173.51	0.90	0.69	1.00	0.01	58.15	173.06	0.89	0.70	1.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
58.24	168.44	0.83	0.95	1.00	0.01	58.29	165.09	0.79	0.98	1.00	0.01
58.36	167.05	0.81	0.96	1.00	0.01	58.42	175.75	0.93	0.68	1.00	0.01
58.47	183.00	1.03	0.50	1.00	0.00	58.55	178.40	0.97	0.52	1.00	0.01
58.60	170.72	0.86	0.71	1.00	0.00	58.66	168.17	0.83	0.95	1.00	0.01
58.74	166.43	2.00	0.00	1.00	0.00	58.82	160.33	2.00	0.00	1.00	0.00
58.87	150.09	2.00	0.00	1.00	0.00	58.96	142.65	2.00	0.00	1.00	0.00
59.00	137.13	2.00	0.00	1.00	0.00	59.06	132.88	2.00	0.00	1.00	0.00
59.14	129.17	0.45	1.89	1.00	0.02	59.19	126.43	0.43	1.93	1.00	0.01
59.27	125.73	0.42	1.94	1.00	0.02	59.35	126.81	0.43	1.92	1.00	0.02
59.41	128.11	0.44	1.91	1.00	0.01	59.45	128.92	0.45	1.90	1.00	0.01
59.52	127.98	0.44	1.91	1.00	0.02	59.59	126.44	0.43	1.93	1.00	0.01
59.67	126.14	0.43	1.93	1.00	0.02	59.72	127.29	0.44	1.92	1.00	0.01
59.79	129.74	0.45	1.89	1.00	0.02	59.85	133.22	0.48	1.85	1.00	0.01
59.92	136.25	0.51	1.81	1.00	0.02	59.98	138.29	0.52	1.79	1.00	0.01
60.05	138.59	2.00	0.00	1.00	0.00	60.12	137.45	2.00	0.00	1.00	0.00
60.22	136.18	2.00	0.00	1.00	0.00	60.25	135.17	2.00	0.00	1.00	0.00
60.31	135.13	2.00	0.00	1.00	0.00	60.38	136.86	2.00	0.00	1.00	0.00
60.47	140.33	2.00	0.00	1.00	0.00	60.52	145.13	2.00	0.00	1.00	0.00
60.58	149.47	2.00	0.00	1.00	0.00	60.64	152.45	2.00	0.00	1.00	0.00
60.70	152.59	2.00	0.00	1.00	0.00	60.79	150.53	2.00	0.00	1.00	0.00
60.84	146.42	2.00	0.00	1.00	0.00	60.90	141.06	2.00	0.00	1.00	0.00
60.98	134.69	2.00	0.00	1.00	0.00	61.06	129.65	2.00	0.00	1.00	0.00
61.10	126.03	2.00	0.00	1.00	0.00	61.17	124.08	2.00	0.00	1.00	0.00
61.24	122.56	2.00	0.00	1.00	0.00	61.30	122.10	2.00	0.00	1.00	0.00
61.37	122.34	2.00	0.00	1.00	0.00	61.43	123.13	2.00	0.00	1.00	0.00
61.49	124.57	2.00	0.00	1.00	0.00	61.57	126.43	2.00	0.00	1.00	0.00
61.64	129.33	2.00	0.00	1.00	0.00	61.70	132.48	2.00	0.00	1.00	0.00
61.76	137.61	2.00	0.00	1.00	0.00	61.84	143.85	2.00	0.00	1.00	0.00
61.89	152.96	2.00	0.00	1.00	0.00	61.97	162.11	2.00	0.00	1.00	0.00
62.01	174.01	2.00	0.00	1.00	0.00	62.11	184.77	2.00	0.00	1.00	0.00
62.14	197.18	2.00	0.00	1.00	0.00	62.20	208.08	2.00	0.00	1.00	0.00
62.29	217.79	2.00	0.00	1.00	0.00	62.35	221.51	2.00	0.00	1.00	0.00
62.41	218.06	2.00	0.00	1.00	0.00	62.48	209.26	2.00	0.00	1.00	0.00
62.55	198.67	2.00	0.00	1.00	0.00	62.61	188.33	2.00	0.00	1.00	0.00
62.69	179.83	2.00	0.00	1.00	0.00	62.73	168.99	2.00	0.00	1.00	0.00
62.82	152.96	2.00	0.00	1.00	0.00	62.87	138.10	2.00	0.00	1.00	0.00
62.95	126.80	2.00	0.00	1.00	0.00	63.00	120.74	2.00	0.00	1.00	0.00
63.07	116.46	2.00	0.00	1.00	0.00	63.13	116.45	2.00	0.00	1.00	0.00
63.22	118.04	2.00	0.00	1.00	0.00	63.27	120.11	2.00	0.00	1.00	0.00
63.35	120.77	2.00	0.00	1.00	0.00	63.40	121.89	2.00	0.00	1.00	0.00
63.45	122.78	2.00	0.00	1.00	0.00	63.53	122.82	2.00	0.00	1.00	0.00
63.59	117.57	2.00	0.00	1.00	0.00	63.66	115.22	2.00	0.00	1.00	0.00
63.72	116.10	2.00	0.00	1.00	0.00	63.81	115.88	2.00	0.00	1.00	0.00
63.85	116.26	2.00	0.00	1.00	0.00	63.94	125.11	2.00	0.00	1.00	0.00
63.99	130.47	2.00	0.00	1.00	0.00	64.04	133.97	2.00	0.00	1.00	0.00
64.12	136.57	2.00	0.00	1.00	0.00	64.18	140.41	2.00	0.00	1.00	0.00
64.25	144.91	2.00	0.00	1.00	0.00	64.32	148.55	2.00	0.00	1.00	0.00
64.39	150.32	2.00	0.00	1.00	0.00	64.44	148.33	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
64.51	142.86	2.00	0.00	1.00	0.00	64.58	135.48	2.00	0.00	1.00	0.00
64.66	129.11	2.00	0.00	1.00	0.00	64.72	126.72	2.00	0.00	1.00	0.00
64.79	124.16	2.00	0.00	1.00	0.00	64.88	121.75	2.00	0.00	1.00	0.00
64.92	117.83	2.00	0.00	1.00	0.00	64.97	113.82	2.00	0.00	1.00	0.00
65.06	108.87	2.00	0.00	1.00	0.00	65.11	102.63	2.00	0.00	1.00	0.00
65.19	98.81	2.00	0.00	1.00	0.00	65.24	97.40	2.00	0.00	1.00	0.00
65.32	98.85	2.00	0.00	1.00	0.00	65.37	100.81	2.00	0.00	1.00	0.00
65.44	106.60	2.00	0.00	1.00	0.00	65.51	114.50	2.00	0.00	1.00	0.00
65.55	123.39	2.00	0.00	1.00	0.00	65.64	130.35	2.00	0.00	1.00	0.00
65.69	136.91	2.00	0.00	1.00	0.00	65.77	146.56	2.00	0.00	1.00	0.00
65.82	164.16	2.00	0.00	1.00	0.00	65.89	183.63	2.00	0.00	1.00	0.00
65.96	193.64	2.00	0.00	1.00	0.00	66.03	194.71	2.00	0.00	1.00	0.00
66.09	195.99	2.00	0.00	1.00	0.00	66.18	202.00	2.00	0.00	1.00	0.00
66.22	206.97	2.00	0.00	1.00	0.00	66.28	210.33	2.00	0.00	1.00	0.00
66.34	207.63	2.00	0.00	1.00	0.00	66.41	199.07	2.00	0.00	1.00	0.00
66.50	185.84	2.00	0.00	1.00	0.00	66.54	174.17	2.00	0.00	1.00	0.00
66.60	166.87	2.00	0.00	1.00	0.00	66.68	164.35	2.00	0.00	1.00	0.00
66.74	164.85	2.00	0.00	1.00	0.00	66.80	164.48	2.00	0.00	1.00	0.00
66.90	161.45	2.00	0.00	1.00	0.00	66.94	157.90	2.00	0.00	1.00	0.00
67.00	157.38	2.00	0.00	1.00	0.00	67.08	157.49	2.00	0.00	1.00	0.00
67.13	160.14	2.00	0.00	1.00	0.00	67.20	162.22	2.00	0.00	1.00	0.00
67.28	163.57	2.00	0.00	1.00	0.00	67.34	163.66	2.00	0.00	1.00	0.00
67.39	164.37	2.00	0.00	1.00	0.00	67.46	166.45	2.00	0.00	1.00	0.00
67.53	169.83	2.00	0.00	1.00	0.00	67.60	176.15	2.00	0.00	1.00	0.00
67.66	183.87	2.00	0.00	1.00	0.00	67.75	190.72	2.00	0.00	1.00	0.00
67.78	182.83	2.00	0.00	1.00	0.00	67.88	182.86	2.00	0.00	1.00	0.00
67.92	175.72	2.00	0.00	1.00	0.00	68.00	163.40	2.00	0.00	1.00	0.00
68.07	148.96	2.00	0.00	1.00	0.00	68.12	137.32	2.00	0.00	1.00	0.00
68.18	127.52	2.00	0.00	1.00	0.00	68.24	119.86	2.00	0.00	1.00	0.00
68.31	114.19	2.00	0.00	1.00	0.00	68.37	110.93	2.00	0.00	1.00	0.00
68.47	109.14	2.00	0.00	1.00	0.00	68.51	108.30	2.00	0.00	1.00	0.00
68.58	107.92	2.00	0.00	1.00	0.00	68.65	107.72	2.00	0.00	1.00	0.00
68.73	108.05	2.00	0.00	1.00	0.00	68.78	108.89	2.00	0.00	1.00	0.00
68.85	109.85	2.00	0.00	1.00	0.00	68.92	110.49	2.00	0.00	1.00	0.00
68.97	110.06	2.00	0.00	1.00	0.00	69.05	108.80	2.00	0.00	1.00	0.00
69.15	107.51	2.00	0.00	1.00	0.00	69.17	106.61	2.00	0.00	1.00	0.00
69.23	107.56	2.00	0.00	1.00	0.00	69.32	109.82	2.00	0.00	1.00	0.00
69.36	114.19	2.00	0.00	1.00	0.00	69.45	120.06	2.00	0.00	1.00	0.00
69.50	124.57	2.00	0.00	1.00	0.00	69.56	128.43	2.00	0.00	1.00	0.00
69.63	130.26	2.00	0.00	1.00	0.00	69.71	132.41	2.00	0.00	1.00	0.00
69.75	134.13	2.00	0.00	1.00	0.00	69.85	134.99	2.00	0.00	1.00	0.00
69.90	135.71	2.00	0.00	1.00	0.00	69.96	136.97	2.00	0.00	1.00	0.00
70.02	138.97	2.00	0.00	1.00	0.00	70.08	140.55	2.00	0.00	1.00	0.00
70.16	140.52	2.00	0.00	1.00	0.00	70.22	140.52	2.00	0.00	1.00	0.00
70.30	141.02	2.00	0.00	1.00	0.00	70.34	142.46	2.00	0.00	1.00	0.00
70.41	142.47	2.00	0.00	1.00	0.00	70.48	142.48	2.00	0.00	1.00	0.00
70.56	141.00	2.00	0.00	1.00	0.00	70.61	139.78	2.00	0.00	1.00	0.00
70.68	138.31	2.00	0.00	1.00	0.00	70.75	138.85	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
70.82	141.42	2.00	0.00	1.00	0.00	70.87	149.22	2.00	0.00	1.00	0.00
70.95	160.22	2.00	0.00	1.00	0.00	71.01	170.61	2.00	0.00	1.00	0.00
71.08	175.80	2.00	0.00	1.00	0.00	71.14	173.25	2.00	0.00	1.00	0.00
71.20	169.97	2.00	0.00	1.00	0.00	71.27	166.62	2.00	0.00	1.00	0.00
71.33	166.25	2.00	0.00	1.00	0.00	71.40	162.38	2.00	0.00	1.00	0.00
71.47	157.78	2.00	0.00	1.00	0.00	71.53	151.47	2.00	0.00	1.00	0.00
71.62	148.01	2.00	0.00	1.00	0.00	71.66	150.63	2.00	0.00	1.00	0.00
71.74	159.05	2.00	0.00	1.00	0.00	71.80	172.19	2.00	0.00	1.00	0.00
71.85	185.32	2.00	0.00	1.00	0.00	71.92	195.72	2.00	0.00	1.00	0.00
72.01	202.26	2.00	0.00	1.00	0.00	72.05	206.16	2.00	0.00	1.00	0.00
72.14	208.45	2.00	0.00	1.00	0.00	72.19	207.13	2.00	0.00	1.00	0.00
72.24	200.03	2.00	0.00	1.00	0.00	72.32	194.15	2.00	0.00	1.00	0.00
72.38	190.23	2.00	0.00	1.00	0.00	72.46	187.76	2.00	0.00	1.00	0.00
72.51	179.77	2.00	0.00	1.00	0.00	72.59	169.28	2.00	0.00	1.00	0.00
72.67	160.18	2.00	0.00	1.00	0.00	72.72	154.88	2.00	0.00	1.00	0.00
72.81	152.25	2.00	0.00	1.00	0.00	72.85	149.60	2.00	0.00	1.00	0.00
72.93	148.22	2.00	0.00	1.00	0.00	72.99	147.52	2.00	0.00	1.00	0.00
73.03	148.53	2.00	0.00	1.00	0.00	73.12	150.77	2.00	0.00	1.00	0.00
73.17	152.89	2.00	0.00	1.00	0.00	73.24	153.01	2.00	0.00	1.00	0.00
73.31	148.66	2.00	0.00	1.00	0.00	73.39	142.45	2.00	0.00	1.00	0.00
73.44	137.36	2.00	0.00	1.00	0.00	73.49	132.63	2.00	0.00	1.00	0.00
73.57	127.66	2.00	0.00	1.00	0.00	73.63	120.24	2.00	0.00	1.00	0.00
73.71	115.91	2.00	0.00	1.00	0.00	73.77	113.57	2.00	0.00	1.00	0.00
73.85	112.49	2.00	0.00	1.00	0.00	73.91	111.35	2.00	0.00	1.00	0.00
73.99	110.46	2.00	0.00	1.00	0.00	74.04	110.96	2.00	0.00	1.00	0.00
74.09	113.27	2.00	0.00	1.00	0.00	74.17	116.04	2.00	0.00	1.00	0.00
74.22	119.23	2.00	0.00	1.00	0.00	74.28	121.26	2.00	0.00	1.00	0.00
74.35	122.65	2.00	0.00	1.00	0.00	74.43	123.04	2.00	0.00	1.00	0.00
74.49	123.40	2.00	0.00	1.00	0.00	74.58	124.23	2.00	0.00	1.00	0.00
74.62	125.73	2.00	0.00	1.00	0.00	74.68	127.21	2.00	0.00	1.00	0.00
74.75	129.02	2.00	0.00	1.00	0.00	74.84	131.07	2.00	0.00	1.00	0.00
74.89	133.80	2.00	0.00	1.00	0.00	74.94	136.85	2.00	0.00	1.00	0.00
75.03	139.79	2.00	0.00	1.00	0.00	75.07	142.26	2.00	0.00	1.00	0.00
75.14	143.14	2.00	0.00	1.00	0.00	75.20	142.99	2.00	0.00	1.00	0.00
75.29	142.20	2.00	0.00	1.00	0.00	75.34	141.69	2.00	0.00	1.00	0.00
75.40	141.45	2.00	0.00	1.00	0.00	75.47	141.28	2.00	0.00	1.00	0.00
75.53	141.84	2.00	0.00	1.00	0.00	75.60	142.85	2.00	0.00	1.00	0.00
75.70	143.78	2.00	0.00	1.00	0.00	75.74	143.92	2.00	0.00	1.00	0.00
75.81	143.03	2.00	0.00	1.00	0.00	75.86	140.72	2.00	0.00	1.00	0.00
75.93	137.39	2.00	0.00	1.00	0.00	76.01	135.19	2.00	0.00	1.00	0.00
76.06	133.77	2.00	0.00	1.00	0.00	76.13	134.35	2.00	0.00	1.00	0.00
76.18	133.54	2.00	0.00	1.00	0.00	76.25	136.14	2.00	0.00	1.00	0.00
76.33	138.35	2.00	0.00	1.00	0.00	76.40	141.97	2.00	0.00	1.00	0.00
76.47	143.15	2.00	0.00	1.00	0.00	76.51	145.14	2.00	0.00	1.00	0.00
76.60	147.03	2.00	0.00	1.00	0.00	76.64	150.45	2.00	0.00	1.00	0.00
76.71	154.97	2.00	0.00	1.00	0.00	76.78	160.38	2.00	0.00	1.00	0.00
76.86	164.36	2.00	0.00	1.00	0.00	76.92	166.46	2.00	0.00	1.00	0.00
77.00	166.54	2.00	0.00	1.00	0.00	77.04	164.65	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
77.13	161.25	2.00	0.00	1.00	0.00	77.18	157.66	2.00	0.00	1.00	0.00
77.23	155.89	2.00	0.00	1.00	0.00	77.32	155.68	2.00	0.00	1.00	0.00
77.36	156.41	2.00	0.00	1.00	0.00	77.45	152.64	2.00	0.00	1.00	0.00
77.50	142.79	2.00	0.00	1.00	0.00	77.56	144.11	2.00	0.00	1.00	0.00
77.63	152.57	2.00	0.00	1.00	0.00	77.71	165.96	2.00	0.00	1.00	0.00
77.77	169.37	2.00	0.00	1.00	0.00	77.82	172.06	2.00	0.00	1.00	0.00
77.89	171.68	2.00	0.00	1.00	0.00	77.99	171.30	2.00	0.00	1.00	0.00
78.03	167.89	2.00	0.00	1.00	0.00	78.08	165.71	2.00	0.00	1.00	0.00
78.16	160.40	2.00	0.00	1.00	0.00	78.22	151.81	2.00	0.00	1.00	0.00
78.30	143.16	2.00	0.00	1.00	0.00	78.37	135.70	2.00	0.00	1.00	0.00
78.43	131.86	2.00	0.00	1.00	0.00	78.48	131.05	2.00	0.00	1.00	0.00
78.56	131.42	2.00	0.00	1.00	0.00	78.62	133.45	2.00	0.00	1.00	0.00
78.70	134.32	2.00	0.00	1.00	0.00	78.75	135.43	2.00	0.00	1.00	0.00
78.82	136.59	2.00	0.00	1.00	0.00	78.88	138.80	2.00	0.00	1.00	0.00
78.97	141.09	2.00	0.00	1.00	0.00	79.02	143.24	2.00	0.00	1.00	0.00
79.07	144.19	2.00	0.00	1.00	0.00	79.14	143.46	2.00	0.00	1.00	0.00
79.22	140.15	2.00	0.00	1.00	0.00	79.29	135.14	2.00	0.00	1.00	0.00
79.33	132.40	2.00	0.00	1.00	0.00	79.42	132.12	2.00	0.00	1.00	0.00
79.47	133.58	2.00	0.00	1.00	0.00	79.53	134.44	2.00	0.00	1.00	0.00
79.60	136.19	2.00	0.00	1.00	0.00	79.69	138.42	2.00	0.00	1.00	0.00
79.74	139.84	2.00	0.00	1.00	0.00	79.79	139.07	2.00	0.00	1.00	0.00
79.87	136.75	2.00	0.00	1.00	0.00	79.95	134.62	2.00	0.00	1.00	0.00
80.00	134.01	2.00	0.00	1.00	0.00	80.10	134.07	2.00	0.00	1.00	0.00
80.13	133.73	2.00	0.00	1.00	0.00	80.20	133.22	2.00	0.00	1.00	0.00
80.27	128.56	2.00	0.00	1.00	0.00	80.32	128.83	2.00	0.00	1.00	0.00
80.41	128.57	2.00	0.00	1.00	0.00	80.45	128.71	2.00	0.00	1.00	0.00
80.54	129.99	2.00	0.00	1.00	0.00	80.59	132.85	2.00	0.00	1.00	0.00
80.67	136.29	2.00	0.00	1.00	0.00	80.73	141.89	2.00	0.00	1.00	0.00
80.79	155.23	2.00	0.00	1.00	0.00	80.84	163.69	2.00	0.00	1.00	0.00
80.91	170.63	2.00	0.00	1.00	0.00	80.98	174.39	2.00	0.00	1.00	0.00
81.06	175.21	2.00	0.00	1.00	0.00	81.11	175.32	2.00	0.00	1.00	0.00
81.18	165.06	2.00	0.00	1.00	0.00	81.26	160.91	2.00	0.00	1.00	0.00
81.31	155.03	2.00	0.00	1.00	0.00	81.39	151.37	2.00	0.00	1.00	0.00
81.44	148.00	2.00	0.00	1.00	0.00	81.53	144.72	2.00	0.00	1.00	0.00
81.57	147.89	2.00	0.00	1.00	0.00	81.66	145.79	2.00	0.00	1.00	0.00
81.70	143.12	2.00	0.00	1.00	0.00	81.76	140.15	2.00	0.00	1.00	0.00
81.84	136.31	2.00	0.00	1.00	0.00	81.92	132.94	2.00	0.00	1.00	0.00
81.96	129.87	2.00	0.00	1.00	0.00	82.06	127.64	2.00	0.00	1.00	0.00
82.11	120.50	2.00	0.00	1.00	0.00	82.16	118.64	2.00	0.00	1.00	0.00
82.22	116.57	2.00	0.00	1.00	0.00	82.29	114.62	2.00	0.00	1.00	0.00
82.38	113.14	2.00	0.00	1.00	0.00	82.42	112.05	2.00	0.00	1.00	0.00
82.51	111.03	2.00	0.00	1.00	0.00	82.55	109.40	2.00	0.00	1.00	0.00
82.62	106.75	2.00	0.00	1.00	0.00	82.69	101.26	2.00	0.00	1.00	0.00
82.78	96.76	2.00	0.00	1.00	0.00	82.81	98.49	2.00	0.00	1.00	0.00
82.92	100.46	2.00	0.00	1.00	0.00	82.96	102.74	2.00	0.00	1.00	0.00
83.04	104.97	2.00	0.00	1.00	0.00	83.08	107.76	2.00	0.00	1.00	0.00
83.14	110.92	2.00	0.00	1.00	0.00	83.23	113.22	2.00	0.00	1.00	0.00
83.28	115.36	2.00	0.00	1.00	0.00	83.35	117.49	2.00	0.00	1.00	0.00



<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	$Q_{tn,cs}$	FS	$e_v$ (%)	DF	Settlement (in)	Depth (ft)	$Q_{tn,cs}$	FS	$e_v$ (%)	DF	Settlement (in)
83.40	121.43	2.00	0.00	1.00	0.00	83.49	125.45	2.00	0.00	1.00	0.00
83.55	127.81	2.00	0.00	1.00	0.00	83.64	127.33	2.00	0.00	1.00	0.00
83.69	126.29	2.00	0.00	1.00	0.00	83.73	124.97	2.00	0.00	1.00	0.00
83.82	122.80	2.00	0.00	1.00	0.00	83.86	119.42	2.00	0.00	1.00	0.00
83.95	116.28	2.00	0.00	1.00	0.00	84.00	110.65	2.00	0.00	1.00	0.00
84.09	111.59	2.00	0.00	1.00	0.00	84.13	115.67	2.00	0.00	1.00	0.00
84.20	125.05	2.00	0.00	1.00	0.00	84.26	151.38	2.00	0.00	1.00	0.00
84.35	175.26	2.00	0.00	1.00	0.00	84.40	191.30	2.00	0.00	1.00	0.00
84.45	206.60	2.00	0.00	1.00	0.00	84.54	225.26	2.00	0.00	1.00	0.00
84.59	249.69	2.00	0.00	1.00	0.00	84.67	267.26	2.00	0.00	1.00	0.00
84.71	262.86	2.00	0.00	1.00	0.00	84.80	241.24	2.00	0.00	1.00	0.00
84.85	213.97	2.00	0.00	1.00	0.00	84.93	205.35	2.00	0.00	1.00	0.00
84.99	206.63	2.00	0.00	1.00	0.00	85.07	206.73	2.00	0.00	1.00	0.00
85.12	206.67	2.00	0.00	1.00	0.00	85.18	206.67	2.00	0.00	1.00	0.00
85.25	204.02	2.00	0.00	1.00	0.00	85.31	200.91	2.00	0.00	1.00	0.00
85.37	200.47	2.00	0.00	1.00	0.00	85.43	202.12	2.00	0.00	1.00	0.00
85.52	203.42	2.00	0.00	1.00	0.00	85.56	203.85	2.00	0.00	1.00	0.00
85.66	204.50	2.00	0.00	1.00	0.00	85.70	205.41	2.00	0.00	1.00	0.00
85.77	195.42	2.00	0.00	1.00	0.00	85.86	195.03	2.00	0.00	1.00	0.00
85.90	193.22	2.00	0.00	1.00	0.00	85.97	189.90	2.00	0.00	1.00	0.00
86.03	185.09	2.00	0.00	1.00	0.00	86.09	180.73	2.00	0.00	1.00	0.00
86.17	178.77	2.00	0.00	1.00	0.00	86.24	178.47	2.00	0.00	1.00	0.00
86.31	180.08	2.00	0.00	1.00	0.00	86.39	191.25	2.00	0.00	1.00	0.00
86.44	194.69	2.00	0.00	1.00	0.00	86.49	198.52	2.00	0.00	1.00	0.00
86.58	201.87	2.00	0.00	1.00	0.00	86.62	206.19	2.00	0.00	1.00	0.00
86.69	210.72	2.00	0.00	1.00	0.00	86.76	207.35	2.00	0.00	1.00	0.00
86.84	202.26	2.00	0.00	1.00	0.00	86.89	200.27	2.00	0.00	1.00	0.00
86.98	206.77	2.00	0.00	1.00	0.00	87.03	214.16	2.00	0.00	1.00	0.00
87.11	215.97	2.00	0.00	1.00	0.00	87.16	217.32	2.00	0.00	1.00	0.00
87.21	219.31	2.00	0.00	1.00	0.00	87.28	222.46	2.00	0.00	1.00	0.00
87.35	225.48	2.00	0.00	1.00	0.00	87.43	227.59	2.00	0.00	1.00	0.00
87.48	230.82	2.00	0.00	1.00	0.00	87.55	233.88	2.00	0.00	1.00	0.00
87.62	233.53	2.00	0.00	1.00	0.00	87.67	230.16	2.00	0.00	1.00	0.00
87.75	225.27	2.00	0.00	1.00	0.00	87.80	225.58	2.00	0.00	1.00	0.00
87.86	228.31	2.00	0.00	1.00	0.00	87.93	232.62	2.00	0.00	1.00	0.00
88.02	234.83	2.00	0.00	1.00	0.00	88.07	233.20	2.00	0.00	1.00	0.00
88.16	227.52	2.00	0.00	1.00	0.00	88.19	213.43	2.00	0.00	1.00	0.00
88.25	194.01	2.00	0.00	1.00	0.00	88.34	177.99	2.00	0.00	1.00	0.00
88.39	170.68	2.00	0.00	1.00	0.00	88.46	170.71	2.00	0.00	1.00	0.00
88.55	173.18	2.00	0.00	1.00	0.00	88.60	172.95	2.00	0.00	1.00	0.00
88.66	170.83	2.00	0.00	1.00	0.00	88.72	170.19	2.00	0.00	1.00	0.00
88.79	176.25	2.00	0.00	1.00	0.00	88.87	188.42	2.00	0.00	1.00	0.00
88.91	207.47	2.00	0.00	1.00	0.00	89.01	221.64	2.00	0.00	1.00	0.00
89.06	232.76	2.00	0.00	1.00	0.00	89.14	236.71	2.00	0.00	1.00	0.00
89.19	242.47	2.00	0.00	1.00	0.00	89.28	247.34	2.00	0.00	1.00	0.00
89.32	248.49	2.00	0.00	1.00	0.00	89.39	244.94	2.00	0.00	1.00	0.00
89.44	238.87	2.00	0.00	1.00	0.00	89.53	219.96	2.00	0.00	1.00	0.00
89.57	215.66	2.00	0.00	1.00	0.00	89.64	209.78	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
89.71	201.58	2.00	0.00	1.00	0.00	89.77	194.39	2.00	0.00	1.00	0.00
89.84	191.55	2.00	0.00	1.00	0.00	89.92	190.53	2.00	0.00	1.00	0.00
89.98	191.08	2.00	0.00	1.00	0.00	90.05	193.68	2.00	0.00	1.00	0.00
90.11	198.67	2.00	0.00	1.00	0.00	90.17	198.74	2.00	0.00	1.00	0.00
90.24	192.19	2.00	0.00	1.00	0.00	90.30	182.45	2.00	0.00	1.00	0.00
90.36	173.88	2.00	0.00	1.00	0.00	90.42	167.14	2.00	0.00	1.00	0.00
90.50	161.06	2.00	0.00	1.00	0.00	90.56	155.78	2.00	0.00	1.00	0.00
90.64	151.57	2.00	0.00	1.00	0.00	90.69	147.79	2.00	0.00	1.00	0.00
90.76	146.14	2.00	0.00	1.00	0.00	90.82	144.91	2.00	0.00	1.00	0.00
90.91	144.60	2.00	0.00	1.00	0.00	90.96	144.11	2.00	0.00	1.00	0.00
91.03	143.70	2.00	0.00	1.00	0.00	91.09	142.68	2.00	0.00	1.00	0.00
91.15	141.70	2.00	0.00	1.00	0.00	91.23	140.46	2.00	0.00	1.00	0.00
91.31	139.25	2.00	0.00	1.00	0.00	91.37	138.84	2.00	0.00	1.00	0.00
91.41	140.64	2.00	0.00	1.00	0.00	91.49	143.31	2.00	0.00	1.00	0.00
91.54	148.08	2.00	0.00	1.00	0.00	91.63	152.68	2.00	0.00	1.00	0.00
91.67	155.60	2.00	0.00	1.00	0.00	91.74	154.75	2.00	0.00	1.00	0.00
91.81	155.94	2.00	0.00	1.00	0.00	91.90	162.31	2.00	0.00	1.00	0.00
91.94	169.39	2.00	0.00	1.00	0.00	92.00	174.66	2.00	0.00	1.00	0.00
92.08	172.80	2.00	0.00	1.00	0.00	92.14	166.85	2.00	0.00	1.00	0.00
92.19	153.14	2.00	0.00	1.00	0.00	92.26	139.66	2.00	0.00	1.00	0.00
92.35	129.92	2.00	0.00	1.00	0.00	92.40	124.78	2.00	0.00	1.00	0.00
92.47	123.58	2.00	0.00	1.00	0.00	92.53	122.60	2.00	0.00	1.00	0.00
92.59	126.88	2.00	0.00	1.00	0.00	92.66	135.75	2.00	0.00	1.00	0.00
92.73	149.60	2.00	0.00	1.00	0.00	92.80	159.49	2.00	0.00	1.00	0.00
92.88	161.09	2.00	0.00	1.00	0.00	92.93	158.05	2.00	0.00	1.00	0.00
92.98	153.97	2.00	0.00	1.00	0.00	93.07	150.08	2.00	0.00	1.00	0.00
93.12	141.89	2.00	0.00	1.00	0.00	93.20	132.06	2.00	0.00	1.00	0.00
93.25	121.61	2.00	0.00	1.00	0.00	93.32	119.05	2.00	0.00	1.00	0.00
93.39	116.30	2.00	0.00	1.00	0.00	93.45	119.40	2.00	0.00	1.00	0.00
93.52	123.47	2.00	0.00	1.00	0.00	93.58	137.53	2.00	0.00	1.00	0.00
93.65	150.02	2.00	0.00	1.00	0.00	93.73	157.53	2.00	0.00	1.00	0.00
93.78	158.24	2.00	0.00	1.00	0.00	93.88	157.88	2.00	0.00	1.00	0.00
93.92	161.01	2.00	0.00	1.00	0.00	94.02	164.18	2.00	0.00	1.00	0.00
94.04	164.64	2.00	0.00	1.00	0.00	94.10	161.71	2.00	0.00	1.00	0.00
94.19	158.67	2.00	0.00	1.00	0.00	94.23	156.98	2.00	0.00	1.00	0.00
94.32	155.35	2.00	0.00	1.00	0.00	94.37	153.45	2.00	0.00	1.00	0.00
94.45	151.54	2.00	0.00	1.00	0.00	94.50	149.87	2.00	0.00	1.00	0.00
94.58	148.68	2.00	0.00	1.00	0.00	94.64	148.36	2.00	0.00	1.00	0.00
94.69	148.20	2.00	0.00	1.00	0.00	94.77	147.05	2.00	0.00	1.00	0.00
94.83	145.46	2.00	0.00	1.00	0.00	94.90	144.44	2.00	0.00	1.00	0.00
94.95	143.22	2.00	0.00	1.00	0.00	95.02	138.00	2.00	0.00	1.00	0.00
95.09	131.77	2.00	0.00	1.00	0.00	95.15	130.78	2.00	0.00	1.00	0.00
95.21	138.85	2.00	0.00	1.00	0.00	95.28	140.52	2.00	0.00	1.00	0.00
95.34	141.60	2.00	0.00	1.00	0.00	95.43	142.12	2.00	0.00	1.00	0.00
95.48	145.11	2.00	0.00	1.00	0.00	95.56	144.15	2.00	0.00	1.00	0.00
95.61	140.08	2.00	0.00	1.00	0.00	95.67	135.12	2.00	0.00	1.00	0.00
95.74	133.26	2.00	0.00	1.00	0.00	95.84	133.99	2.00	0.00	1.00	0.00
95.87	132.81	2.00	0.00	1.00	0.00	95.94	130.90	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
96.01	129.80	2.00	0.00	1.00	0.00	96.07	128.70	2.00	0.00	1.00	0.00
96.13	128.02	2.00	0.00	1.00	0.00	96.19	126.16	2.00	0.00	1.00	0.00
96.29	122.87	2.00	0.00	1.00	0.00	96.33	117.37	2.00	0.00	1.00	0.00
96.42	112.70	2.00	0.00	1.00	0.00	96.46	109.51	2.00	0.00	1.00	0.00
96.56	110.19	2.00	0.00	1.00	0.00	96.60	110.77	2.00	0.00	1.00	0.00
96.67	110.95	2.00	0.00	1.00	0.00	96.72	110.30	2.00	0.00	1.00	0.00
96.79	110.29	2.00	0.00	1.00	0.00	96.85	111.21	2.00	0.00	1.00	0.00
96.94	112.11	2.00	0.00	1.00	0.00	96.98	113.11	2.00	0.00	1.00	0.00
97.07	114.82	2.00	0.00	1.00	0.00	97.11	117.15	2.00	0.00	1.00	0.00
97.20	118.64	2.00	0.00	1.00	0.00	97.25	118.58	2.00	0.00	1.00	0.00
97.34	117.38	2.00	0.00	1.00	0.00	97.42	113.73	2.00	0.00	1.00	0.00
97.47	108.44	2.00	0.00	1.00	0.00	97.52	99.41	2.00	0.00	1.00	0.00
97.61	85.85	2.00	0.00	1.00	0.00	97.66	84.84	2.00	0.00	1.00	0.00
97.76	83.82	2.00	0.00	1.00	0.00	97.79	80.97	2.00	0.00	1.00	0.00
97.83	91.29	2.00	0.00	1.00	0.00	97.91	91.81	2.00	0.00	1.00	0.00
97.98	94.49	2.00	0.00	1.00	0.00	98.04	99.93	2.00	0.00	1.00	0.00
98.11	104.35	2.00	0.00	1.00	0.00	98.18	108.74	2.00	0.00	1.00	0.00
98.23	112.36	2.00	0.00	1.00	0.00	98.32	114.75	2.00	0.00	1.00	0.00
98.36	116.57	2.00	0.00	1.00	0.00	98.45	117.37	2.00	0.00	1.00	0.00
98.50	117.48	2.00	0.00	1.00	0.00	98.56	117.47	2.00	0.00	1.00	0.00
98.63	118.37	2.00	0.00	1.00	0.00	98.71	120.75	2.00	0.00	1.00	0.00
98.77	124.09	2.00	0.00	1.00	0.00	98.82	128.67	2.00	0.00	1.00	0.00
98.90	133.97	2.00	0.00	1.00	0.00	98.97	140.42	2.00	0.00	1.00	0.00
99.04	146.83	2.00	0.00	1.00	0.00	99.08	149.15	2.00	0.00	1.00	0.00
99.17	146.70	2.00	0.00	1.00	0.00	99.22	140.84	2.00	0.00	1.00	0.00
99.30	145.14	2.00	0.00	1.00	0.00	99.35	161.79	2.00	0.00	1.00	0.00
99.44	174.65	2.00	0.00	1.00	0.00	99.48	183.27	2.00	0.00	1.00	0.00
99.55	183.53	2.00	0.00	1.00	0.00	99.61	182.03	2.00	0.00	1.00	0.00
99.69	180.00	2.00	0.00	1.00	0.00	99.74	179.09	2.00	0.00	1.00	0.00
99.80	176.65	2.00	0.00	1.00	0.00	99.87	173.40	2.00	0.00	1.00	0.00
99.96	169.56	2.00	0.00	1.00	0.00	100.00	166.55	2.00	0.00	1.00	0.00
100.08	159.36	2.00	0.00	1.00	0.00	100.13	152.29	2.00	0.00	1.00	0.00
100.23	149.44	2.00	0.00	1.00	0.00	100.27	148.25	2.00	0.00	1.00	0.00
100.35	144.99	2.00	0.00	1.00	0.00	100.40	135.00	2.00	0.00	1.00	0.00
100.47	129.31	2.00	0.00	1.00	0.00	100.54	128.51	2.00	0.00	1.00	0.00
100.64	131.60	2.00	0.00	1.00	0.00	100.67	132.57	2.00	0.00	1.00	0.00
100.73	129.46	2.00	0.00	1.00	0.00	100.79	122.06	2.00	0.00	1.00	0.00
100.86	112.26	2.00	0.00	1.00	0.00	100.93	102.95	2.00	0.00	1.00	0.00
101.02	98.16	2.00	0.00	1.00	0.00	101.06	96.43	2.00	0.00	1.00	0.00
101.13	96.41	2.00	0.00	1.00	0.00	101.21	96.24	2.00	0.00	1.00	0.00
101.27	96.12	2.00	0.00	1.00	0.00	101.33	95.86	2.00	0.00	1.00	0.00
101.38	95.24	2.00	0.00	1.00	0.00	101.46	94.68	2.00	0.00	1.00	0.00
101.52	94.35	2.00	0.00	1.00	0.00	101.60	94.31	2.00	0.00	1.00	0.00
101.65	94.12	2.00	0.00	1.00	0.00	101.73	93.62	2.00	0.00	1.00	0.00
101.78	92.99	2.00	0.00	1.00	0.00	101.85	92.38	2.00	0.00	1.00	0.00
101.92	91.89	2.00	0.00	1.00	0.00	101.98	91.11	2.00	0.00	1.00	0.00
102.05	89.05	2.00	0.00	1.00	0.00	102.12	85.81	2.00	0.00	1.00	0.00
102.19	83.12	2.00	0.00	1.00	0.00	102.23	82.35	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	$Q_{tn,cs}$	FS	$e_v$ (%)	DF	Settlement (in)	Depth (ft)	$Q_{tn,cs}$	FS	$e_v$ (%)	DF	Settlement (in)
102.33	82.83	2.00	0.00	1.00	0.00	102.37	82.86	2.00	0.00	1.00	0.00
102.45	82.72	2.00	0.00	1.00	0.00	102.50	82.33	2.00	0.00	1.00	0.00
102.56	82.57	2.00	0.00	1.00	0.00	102.63	82.96	2.00	0.00	1.00	0.00
102.71	83.90	2.00	0.00	1.00	0.00	102.77	84.94	2.00	0.00	1.00	0.00
102.83	85.53	2.00	0.00	1.00	0.00	102.89	85.59	2.00	0.00	1.00	0.00
102.96	84.79	2.00	0.00	1.00	0.00	103.04	83.48	2.00	0.00	1.00	0.00
103.13	82.24	2.00	0.00	1.00	0.00	103.18	81.48	2.00	0.00	1.00	0.00
103.24	81.36	2.00	0.00	1.00	0.00	103.30	81.68	2.00	0.00	1.00	0.00
103.36	82.37	2.00	0.00	1.00	0.00	103.44	83.18	2.00	0.00	1.00	0.00
103.48	84.53	2.00	0.00	1.00	0.00	103.58	85.64	2.00	0.00	1.00	0.00
103.64	86.62	2.00	0.00	1.00	0.00	103.68	87.23	2.00	0.00	1.00	0.00
103.75	88.10	2.00	0.00	1.00	0.00	103.82	89.40	2.00	0.00	1.00	0.00
103.89	90.60	2.00	0.00	1.00	0.00	103.94	91.53	2.00	0.00	1.00	0.00
104.00	91.65	2.00	0.00	1.00	0.00	104.08	96.77	2.00	0.00	1.00	0.00
104.16	104.50	2.00	0.00	1.00	0.00	104.20	112.51	2.00	0.00	1.00	0.00
104.30	115.71	2.00	0.00	1.00	0.00	104.33	117.37	2.00	0.00	1.00	0.00
104.44	116.94	2.00	0.00	1.00	0.00	104.46	116.32	2.00	0.00	1.00	0.00
104.53	116.62	2.00	0.00	1.00	0.00	104.60	118.62	2.00	0.00	1.00	0.00
104.67	120.81	2.00	0.00	1.00	0.00	104.74	121.23	2.00	0.00	1.00	0.00
104.80	121.69	2.00	0.00	1.00	0.00	104.88	122.07	2.00	0.00	1.00	0.00
104.93	121.48	2.00	0.00	1.00	0.00	105.01	118.92	2.00	0.00	1.00	0.00
105.07	118.59	2.00	0.00	1.00	0.00	105.16	120.33	2.00	0.00	1.00	0.00
105.20	125.18	2.00	0.00	1.00	0.00	105.25	130.30	2.00	0.00	1.00	0.00
105.32	133.09	2.00	0.00	1.00	0.00	105.39	137.98	2.00	0.00	1.00	0.00
105.47	144.29	2.00	0.00	1.00	0.00	105.52	154.06	2.00	0.00	1.00	0.00
105.61	161.42	2.00	0.00	1.00	0.00	105.66	164.49	2.00	0.00	1.00	0.00
105.71	164.29	2.00	0.00	1.00	0.00	105.78	160.63	2.00	0.00	1.00	0.00
105.84	152.97	2.00	0.00	1.00	0.00	105.92	143.61	2.00	0.00	1.00	0.00
106.01	135.91	2.00	0.00	1.00	0.00	106.04	133.56	2.00	0.00	1.00	0.00
106.11	132.91	2.00	0.00	1.00	0.00	106.19	131.09	2.00	0.00	1.00	0.00
106.23	125.36	2.00	0.00	1.00	0.00	106.31	117.53	2.00	0.00	1.00	0.00
106.37	106.89	2.00	0.00	1.00	0.00	106.44	96.70	2.00	0.00	1.00	0.00
106.51	89.56	2.00	0.00	1.00	0.00	106.59	86.86	2.00	0.00	1.00	0.00
106.64	89.21	2.00	0.00	1.00	0.00	106.73	92.32	2.00	0.00	1.00	0.00
106.77	98.63	2.00	0.00	1.00	0.00	106.87	104.28	2.00	0.00	1.00	0.00
106.91	107.82	2.00	0.00	1.00	0.00	106.96	108.99	2.00	0.00	1.00	0.00
107.02	109.40	2.00	0.00	1.00	0.00	107.09	109.58	2.00	0.00	1.00	0.00
107.17	107.98	2.00	0.00	1.00	0.00	107.22	106.93	2.00	0.00	1.00	0.00
107.30	108.72	2.00	0.00	1.00	0.00	107.35	117.33	2.00	0.00	1.00	0.00
107.42	127.79	2.00	0.00	1.00	0.00	107.49	131.60	2.00	0.00	1.00	0.00
107.55	128.42	2.00	0.00	1.00	0.00	107.63	129.55	2.00	0.00	1.00	0.00
107.69	135.48	2.00	0.00	1.00	0.00	107.75	145.49	2.00	0.00	1.00	0.00
107.83	154.56	2.00	0.00	1.00	0.00	107.92	161.06	2.00	0.00	1.00	0.00
107.96	159.57	2.00	0.00	1.00	0.00	108.02	155.53	2.00	0.00	1.00	0.00
108.09	155.07	2.00	0.00	1.00	0.00	108.14	158.52	2.00	0.00	1.00	0.00
108.21	157.21	2.00	0.00	1.00	0.00	108.28	153.26	2.00	0.00	1.00	0.00
108.36	156.48	2.00	0.00	1.00	0.00	108.40	168.39	2.00	0.00	1.00	0.00
108.47	173.68	2.00	0.00	1.00	0.00	108.54	174.63	2.00	0.00	1.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)											
Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)	Depth (ft)	Q <sub>tn,cs</sub>	FS	e <sub>v</sub> (%)	DF	Settlement (in)
108.60	171.39	2.00	0.00	1.00	0.00	108.67	163.20	2.00	0.00	1.00	0.00
108.73	155.26	2.00	0.00	1.00	0.00	108.81	151.55	2.00	0.00	1.00	0.00
108.87	156.17	2.00	0.00	1.00	0.00	108.95	160.35	2.00	0.00	1.00	0.00
109.00	163.58	2.00	0.00	1.00	0.00	109.06	163.17	2.00	0.00	1.00	0.00
109.14	162.75	2.00	0.00	1.00	0.00	109.19	161.05	2.00	0.00	1.00	0.00
109.25	159.89	2.00	0.00	1.00	0.00	109.33	162.95	2.00	0.00	1.00	0.00
109.39	164.64	2.00	0.00	1.00	0.00	109.46	162.93	2.00	0.00	1.00	0.00
109.52	161.11	2.00	0.00	1.00	0.00	109.58	168.22	2.00	0.00	1.00	0.00
109.65	178.33	2.00	0.00	1.00	0.00	109.71	173.27	2.00	0.00	1.00	0.00
109.78	162.08	2.00	0.00	1.00	0.00	109.87	150.64	2.00	0.00	1.00	0.00
109.91	147.13	2.00	0.00	1.00	0.00	110.00	145.92	2.00	0.00	1.00	0.00
110.04	147.29	2.00	0.00	1.00	0.00	110.14	146.87	2.00	0.00	1.00	0.00
110.18	143.80	2.00	0.00	1.00	0.00	110.24	135.58	2.00	0.00	1.00	0.00
110.31	128.67	2.00	0.00	1.00	0.00	110.40	122.78	2.00	0.00	1.00	0.00
110.45	116.75	2.00	0.00	1.00	0.00	110.50	113.09	2.00	0.00	1.00	0.00
110.58	113.23	2.00	0.00	1.00	0.00	110.63	115.91	2.00	0.00	1.00	0.00
110.72	117.99	2.00	0.00	1.00	0.00	110.78	117.33	2.00	0.00	1.00	0.00
110.83	115.25	2.00	0.00	1.00	0.00	110.90	111.65	2.00	0.00	1.00	0.00
111.00	108.52	2.00	0.00	1.00	0.00	111.04	105.70	2.00	0.00	1.00	0.00
111.11	102.75	2.00	0.00	1.00	0.00	111.18	99.70	2.00	0.00	1.00	0.00
111.23	96.95	2.00	0.00	1.00	0.00	111.29	95.55	2.00	0.00	1.00	0.00
111.36	95.12	2.00	0.00	1.00	0.00	111.42	94.31	2.00	0.00	1.00	0.00
111.49	93.01	2.00	0.00	1.00	0.00	111.57	91.61	2.00	0.00	1.00	0.00
111.62	91.29	2.00	0.00	1.00	0.00	111.72	91.44	2.00	0.00	1.00	0.00
111.76	91.17	2.00	0.00	1.00	0.00	111.82	89.88	2.00	0.00	1.00	0.00
111.89	89.05	2.00	0.00	1.00	0.00	111.95	90.20	2.00	0.00	1.00	0.00
112.03	93.01	2.00	0.00	1.00	0.00	112.09	96.94	2.00	0.00	1.00	0.00
112.15	101.92	2.00	0.00	1.00	0.00	112.23	109.19	2.00	0.00	1.00	0.00
112.30	116.15	2.00	0.00	1.00	0.00	112.34	123.87	2.00	0.00	1.00	0.00
112.42	131.14	2.00	0.00	1.00	0.00	112.48	143.70	2.00	0.00	1.00	0.00
112.56	154.71	2.00	0.00	1.00	0.00	112.60	161.18	2.00	0.00	1.00	0.00
112.67	160.72	2.00	0.00	1.00	0.00	112.74	159.04	2.00	0.00	1.00	0.00
112.83	158.40	2.00	0.00	1.00	0.00	112.87	158.18	2.00	0.00	1.00	0.00
112.94	154.83	2.00	0.00	1.00	0.00	113.01	150.69	2.00	0.00	1.00	0.00
113.06	150.77	2.00	0.00	1.00	0.00	113.15	154.58	2.00	0.00	1.00	0.00
113.23	159.30	2.00	0.00	1.00	0.00	113.28	160.05	2.00	0.00	1.00	0.00
113.33	156.46	2.00	0.00	1.00	0.00	113.41	154.17	2.00	0.00	1.00	0.00
113.45	142.64	2.00	0.00	1.00	0.00	113.54	134.79	2.00	0.00	1.00	0.00
113.59	126.62	2.00	0.00	1.00	0.00	113.66	127.60	2.00	0.00	1.00	0.00
113.72	126.38	2.00	0.00	1.00	0.00	113.80	124.80	2.00	0.00	1.00	0.00
113.85	119.82	2.00	0.00	1.00	0.00	113.95	115.00	2.00	0.00	1.00	0.00
113.98	110.19	2.00	0.00	1.00	0.00	114.06	113.75	2.00	0.00	1.00	0.00
114.12	136.81	2.00	0.00	1.00	0.00	114.21	156.68	2.00	0.00	1.00	0.00
114.25	156.21	2.00	0.00	1.00	0.00	114.32	142.55	2.00	0.00	1.00	0.00
114.37	143.55	2.00	0.00	1.00	0.00	114.45	151.77	2.00	0.00	1.00	0.00
114.51	164.65	2.00	0.00	1.00	0.00	114.58	168.90	2.00	0.00	1.00	0.00
114.64	168.81	2.00	0.00	1.00	0.00	114.71	171.31	2.00	0.00	1.00	0.00
114.77	173.04	2.00	0.00	1.00	0.00	114.84	173.83	2.00	0.00	1.00	0.00

<b>:: Post-earthquake settlement due to soil liquefaction :: (continued)</b>											
Depth (ft)	$Q_{tn,cs}$	FS	$e_v$ (%)	DF	Settlement (in)	Depth (ft)	$Q_{tn,cs}$	FS	$e_v$ (%)	DF	Settlement (in)
114.90	166.51	2.00	0.00	1.00	0.00	114.98	164.23	2.00	0.00	1.00	0.00
115.03	157.23	2.00	0.00	1.00	0.00	115.12	148.03	2.00	0.00	1.00	0.00
115.16	131.83	2.00	0.00	1.00	0.00	115.25	116.17	2.00	0.00	1.00	0.00
115.30	102.45	2.00	0.00	1.00	0.00	115.36	96.99	2.00	0.00	1.00	0.00
115.43	95.48	2.00	0.00	1.00	0.00	115.49	95.25	2.00	0.00	1.00	0.00
115.55	95.04	2.00	0.00	1.00	0.00	115.64	94.55	2.00	0.00	1.00	0.00
115.71	93.88	2.00	0.00	1.00	0.00	115.78	93.10	2.00	0.00	1.00	0.00
115.82	92.19	2.00	0.00	1.00	0.00	115.88	91.07	2.00	0.00	1.00	0.00
115.95	89.57	2.00	0.00	1.00	0.00	116.05	88.09	2.00	0.00	1.00	0.00
116.09	87.18	2.00	0.00	1.00	0.00	116.16	86.93	2.00	0.00	1.00	0.00
116.22	87.12	2.00	0.00	1.00	0.00	116.28	88.37	2.00	0.00	1.00	0.00
116.36	90.40	2.00	0.00	1.00	0.00	116.43	94.43	2.00	0.00	1.00	0.00
116.49	100.52	2.00	0.00	1.00	0.00	116.54	113.42	2.00	0.00	1.00	0.00
116.60	125.32	2.00	0.00	1.00	0.00	116.67	133.20	2.00	0.00	1.00	0.00
116.74	124.38	2.00	0.00	1.00	0.00	116.81	121.46	2.00	0.00	1.00	0.00
116.90	125.71	2.00	0.00	1.00	0.00	116.94	134.87	2.00	0.00	1.00	0.00
117.02	141.19	2.00	0.00	1.00	0.00	117.08	139.21	2.00	0.00	1.00	0.00
117.16	132.17	2.00	0.00	1.00	0.00	117.20	122.15	2.00	0.00	1.00	0.00
117.29	114.51	2.00	0.00	1.00	0.00	117.34	108.83	2.00	0.00	1.00	0.00
117.41	108.19	2.00	0.00	1.00	0.00	117.46	111.84	2.00	0.00	1.00	0.00
117.53	121.57	2.00	0.00	1.00	0.00	117.61	130.12	2.00	0.00	1.00	0.00
117.66	136.01	2.00	0.00	1.00	0.00	117.73	140.44	2.00	0.00	1.00	0.00
117.80	150.18	2.00	0.00	1.00	0.00	117.90	158.07	2.00	0.00	1.00	0.00
117.93	159.37	2.00	0.00	1.00	0.00	117.98	150.04	2.00	0.00	1.00	0.00
118.07	143.13	2.00	0.00	1.00	0.00	118.12	140.59	2.00	0.00	1.00	0.00
118.18	133.87	2.00	0.00	1.00	0.00	118.25	145.01	2.00	0.00	1.00	0.00
118.31	159.26	2.00	0.00	1.00	0.00	118.39	165.15	2.00	0.00	1.00	0.00
118.44	152.97	2.00	0.00	1.00	0.00	118.53	138.80	2.00	0.00	1.00	0.00
118.58	128.77	2.00	0.00	1.00	0.00	118.65	127.84	2.00	0.00	1.00	0.00
118.71	125.75	2.00	0.00	1.00	0.00	118.77	117.56	2.00	0.00	1.00	0.00
118.84	119.49	2.00	0.00	1.00	0.00	118.93	119.44	2.00	0.00	1.00	0.00
118.98	117.70	2.00	0.00	1.00	0.00	119.03	114.15	2.00	0.00	1.00	0.00
119.11	-1.00	2.00	0.00	1.00	0.00	119.16	-1.00	2.00	0.00	1.00	0.00
119.23	-1.00	2.00	0.00	1.00	0.00	119.29	-1.00	2.00	0.00	1.00	0.00
119.39	-1.00	2.00	0.00	1.00	0.00						

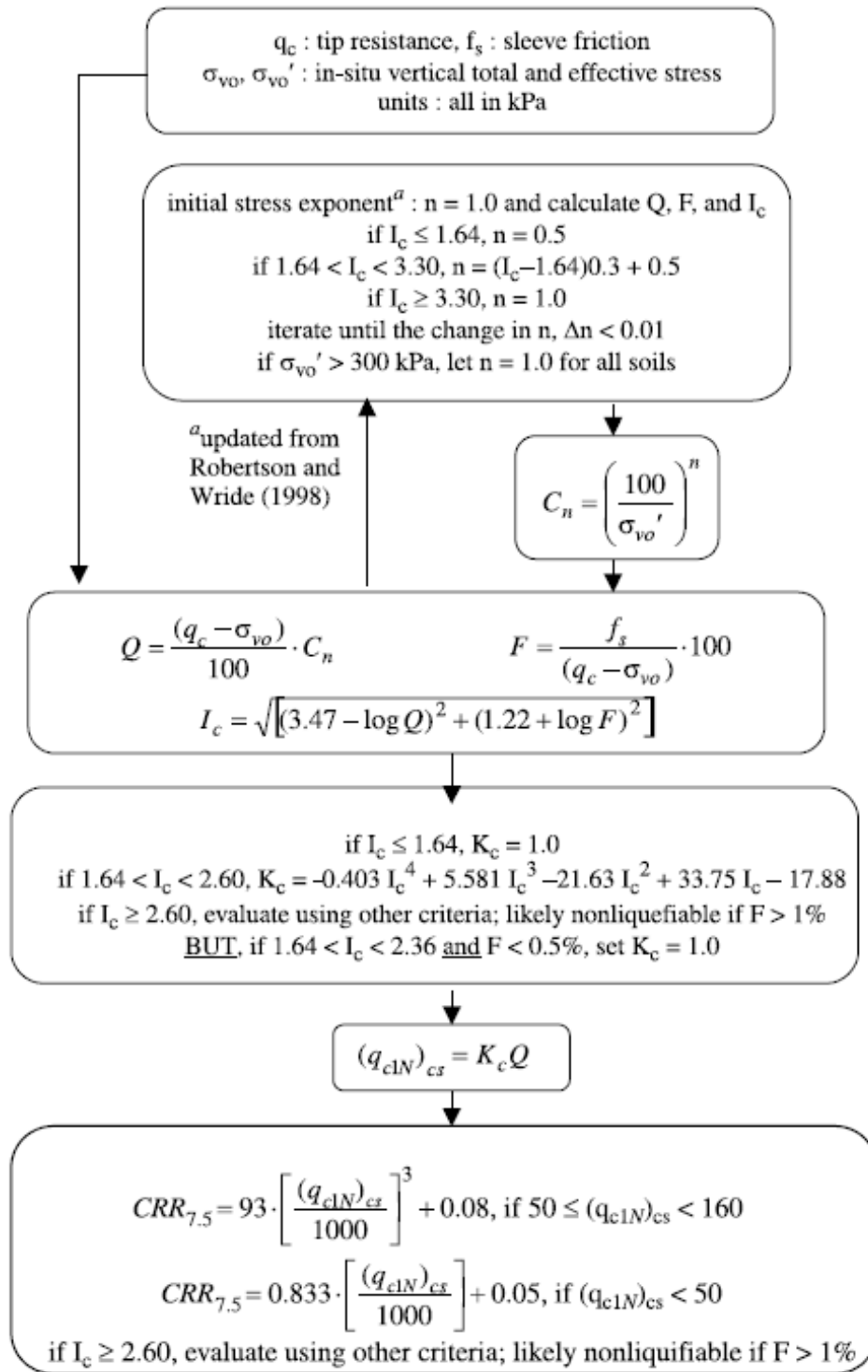
**Total estimated settlement: 1.88**

#### Abbreviations

$Q_{tn,cs}$ :	Equivalent clean sand normalized cone resistance
FS:	Factor of safety against liquefaction
$e_v$ (%):	Post-liquefaction volumetric strain
DF:	$e_v$ depth weighting factor
Settlement:	Calculated settlement

## Procedure for the evaluation of soil liquefaction resistance, NCEER (1998)

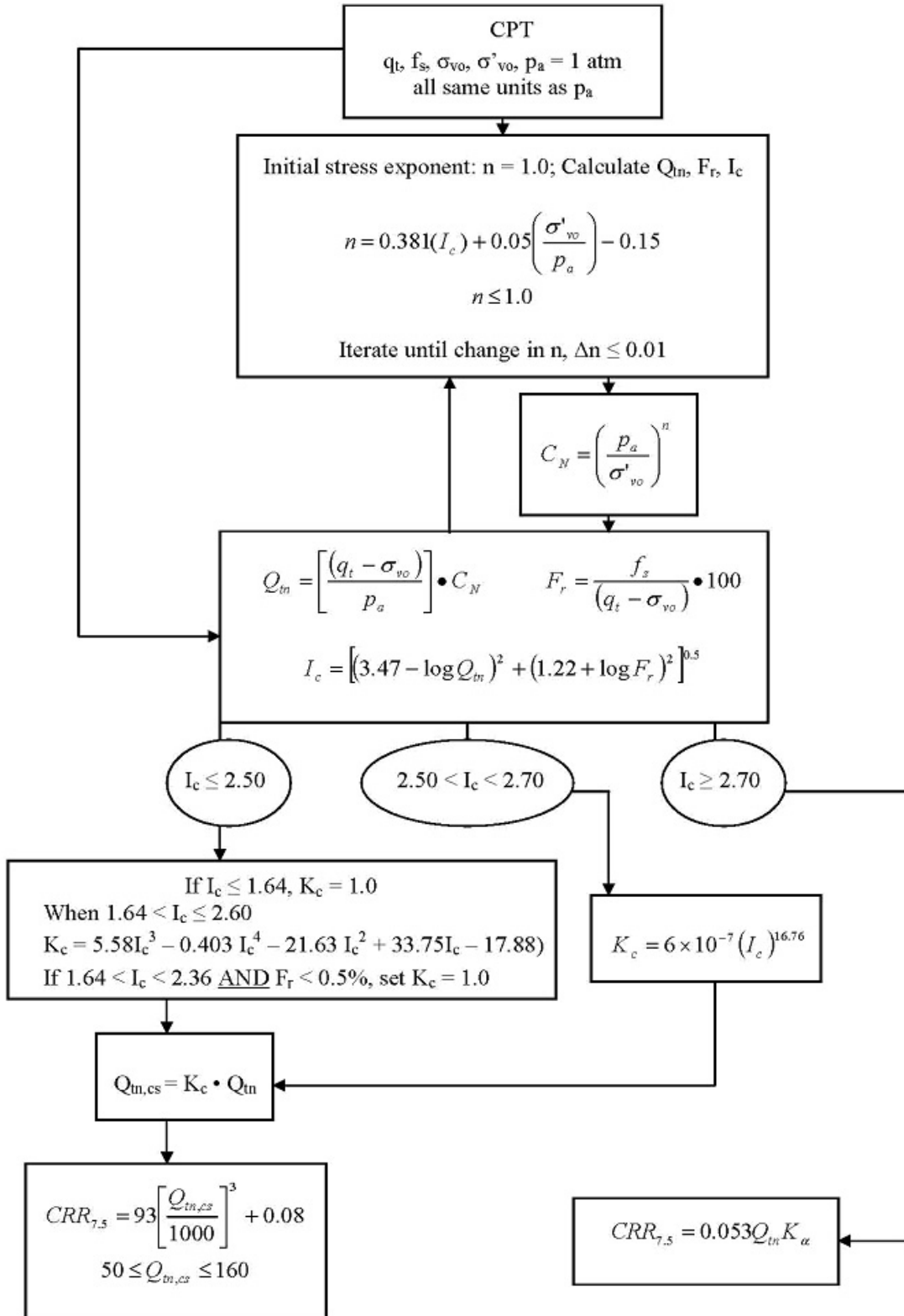
Calculation of soil resistance against liquefaction is performed according to the Robertson & Wride (1998) procedure. The procedure used in the software, slightly differs from the one originally published in NCEER-97-0022 (Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils). The revised procedure is presented below in the form of a flowchart<sup>1</sup>:



<sup>1</sup> "Estimating liquefaction-induced ground settlements from CPT for level ground", G. Zhang, P.K. Robertson, and R.W.I. Brachman

## Procedure for the evaluation of soil liquefaction resistance (all soils), Robertson (2010)

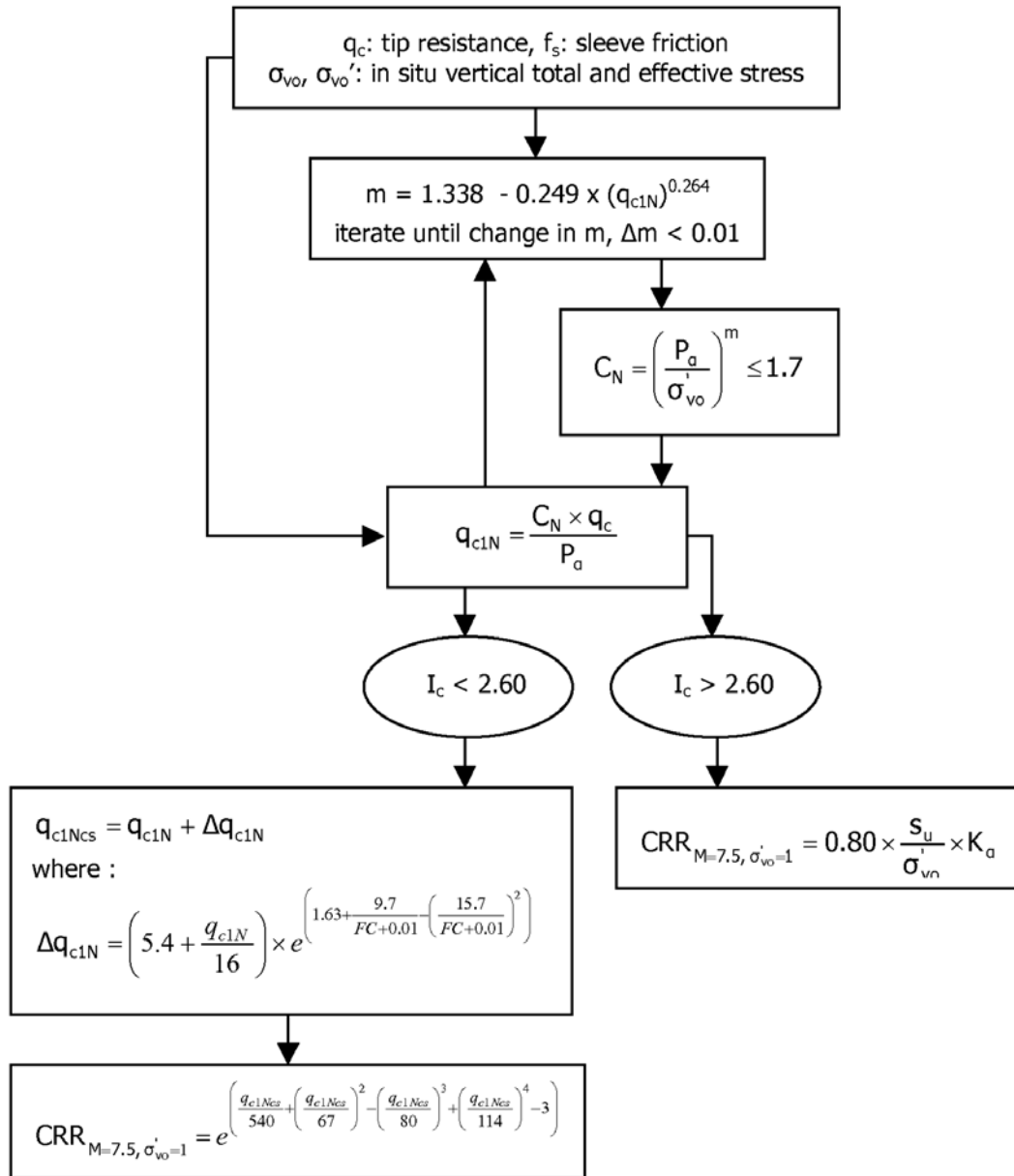
Calculation of soil resistance against liquefaction is performed according to the Robertson & Wride (1998) procedure. This procedure used in the software, slightly differs from the one originally published in NCEER-97-0022 (Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils). The revised procedure is presented below in the form of a flowchart<sup>1</sup>:



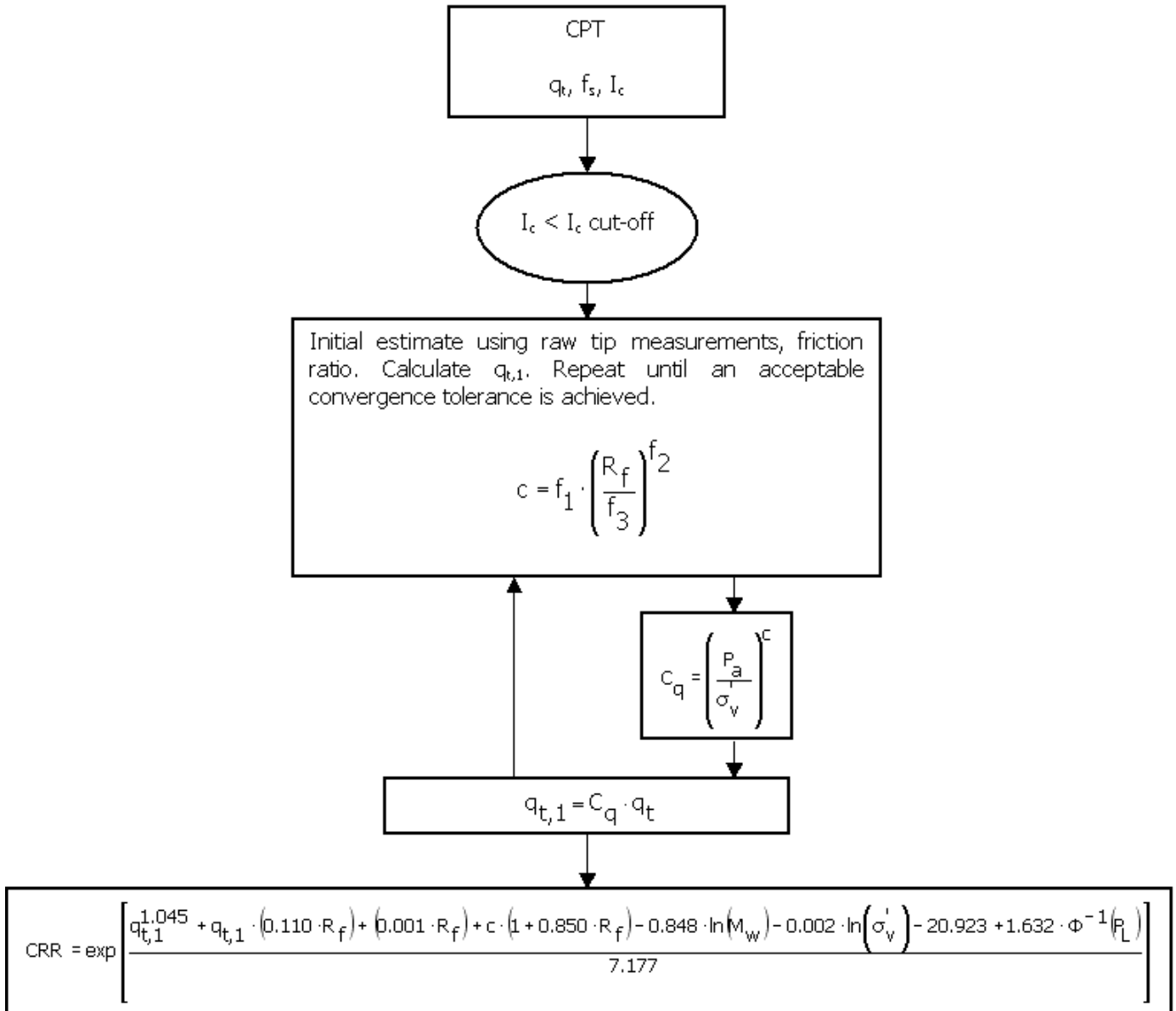
<sup>1</sup> P.K. Robertson, 2009. "Performance based earthquake design using the CPT", Keynote Lecture, International Conference on Performance-based Design in Earthquake Geotechnical Engineering – from case history to practice, IS-Tokyo, June 2009



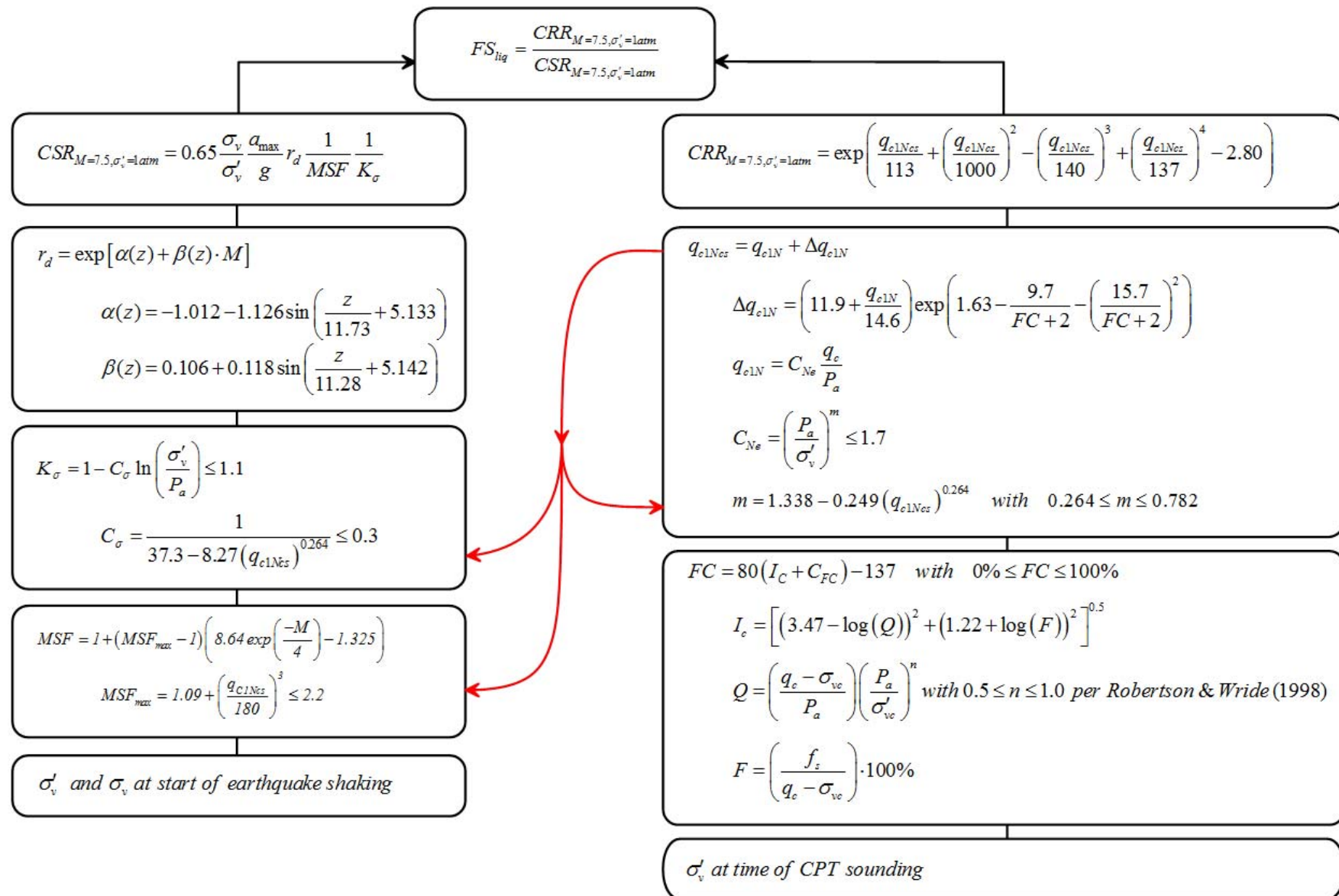
**Procedure for the evaluation of soil liquefaction resistance, Idriss & Boulanger (2008)**



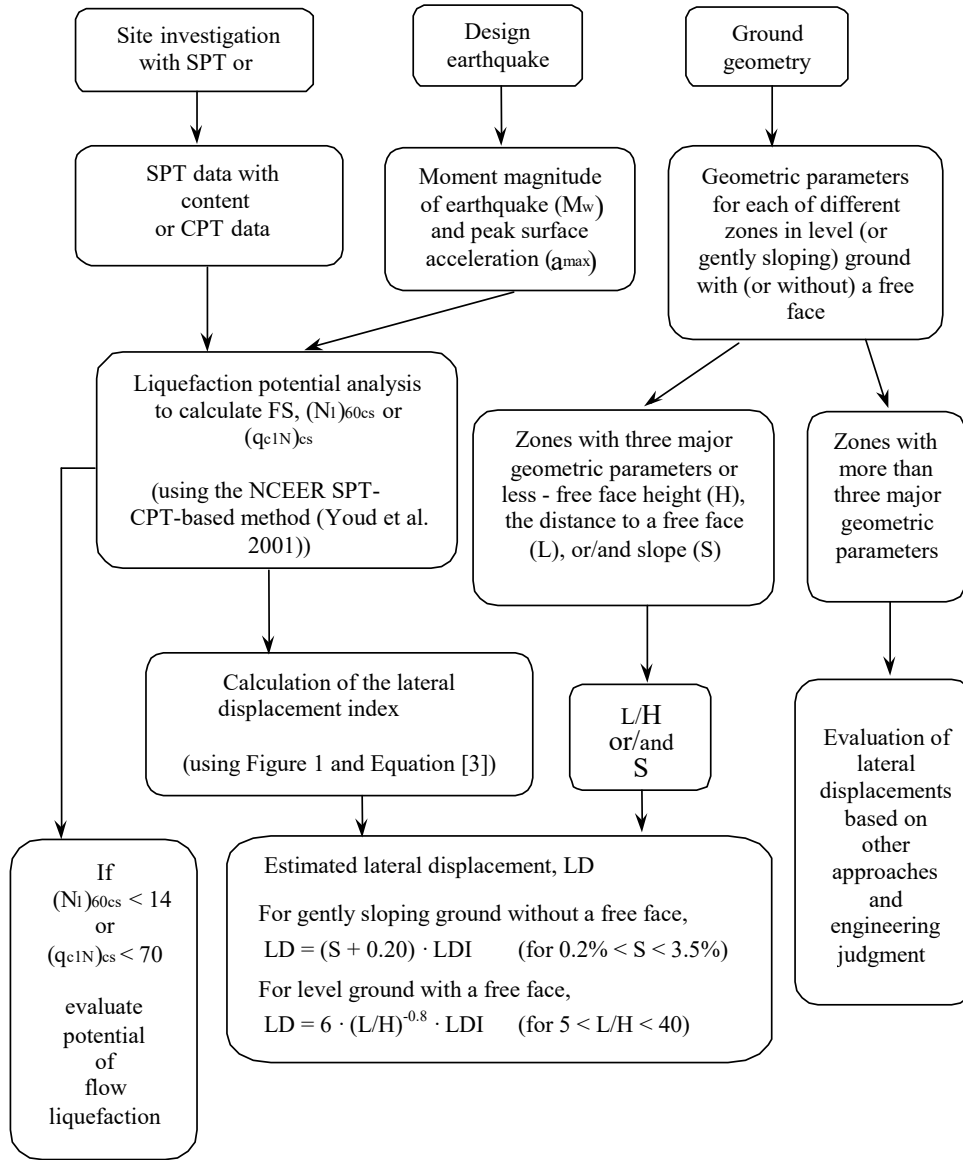
**Procedure for the evaluation of soil liquefaction resistance (sandy soils), Moss et al. (2006)**



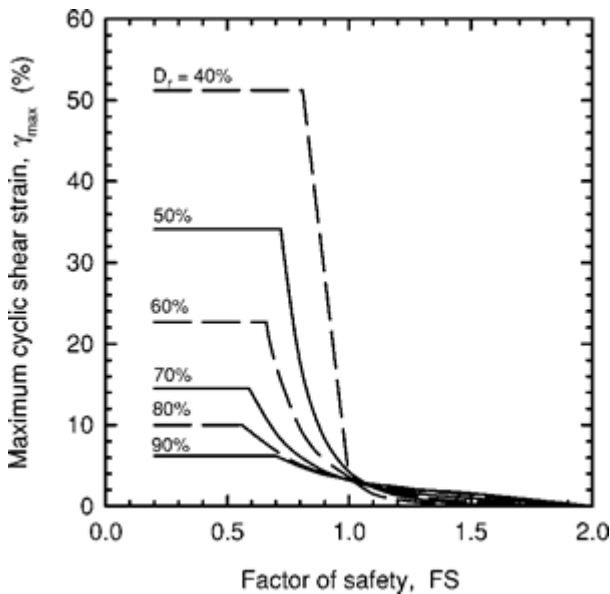
Procedure for the evaluation of soil liquefaction resistance, Boulanger & Idriss(2014)



# Procedure for the evaluation of liquefaction-induced lateral spreading displacements



<sup>1</sup> Flow chart illustrating major steps in estimating liquefaction-induced lateral spreading displacements using the proposed approach



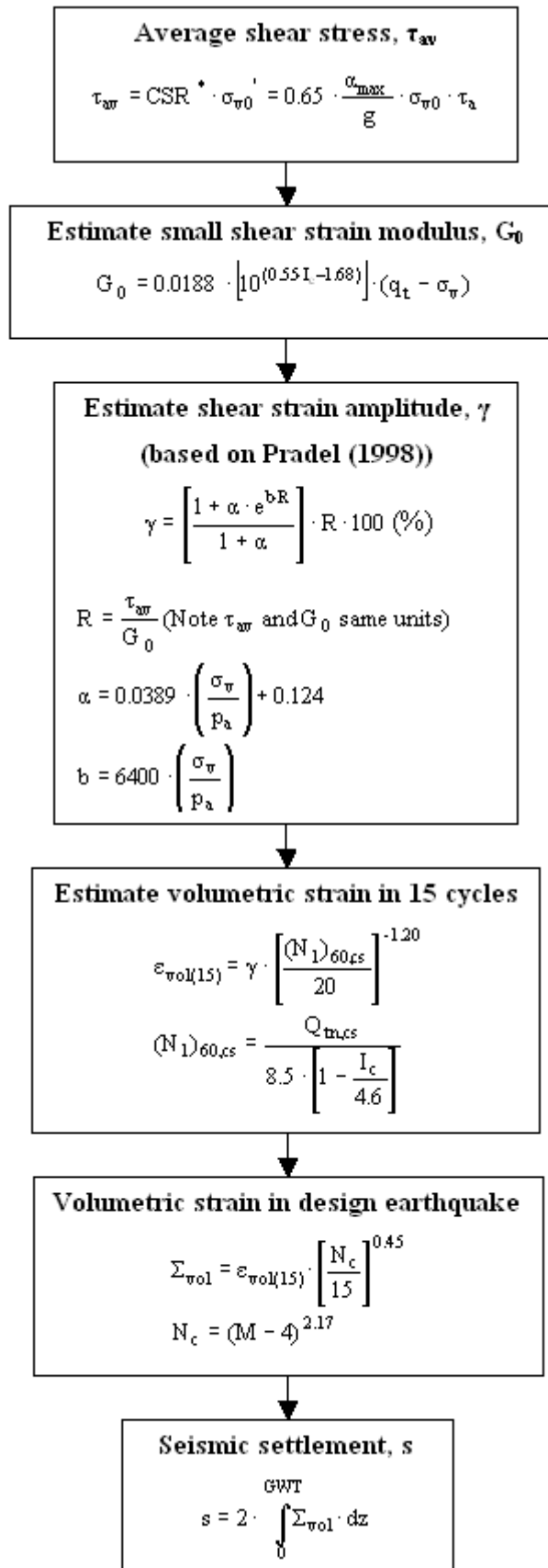
<sup>1</sup> Figure 1

$$LDI = \int_0^{Z_{max}} \gamma_{max} dz$$

<sup>1</sup> Equation [3]

<sup>1</sup> "Estimating liquefaction-induced ground settlements from CPT for level ground", G. Zhang, P.K. Robertson, and R.W.I. Brachman

## Procedure for the estimation of seismic induced settlements in dry sands



Robertson, P.K. and Lisheng, S., 2010, "Estimation of seismic compression in dry soils using the CPT" FIFTH INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN GEOTECHNICAL EARTHQUAKE ENGINEERING AND SOIL DYNAMICS, Symposium in honor of professor I. M. Idriss, San Diego, CA

## Liquefaction Potential Index (LPI) calculation procedure

Calculation of the Liquefaction Potential Index (LPI) is used to interpret the liquefaction assessment calculations in terms of severity over depth. The calculation procedure is based on the methodology developed by Iwasaki (1982) and is adopted by AFPS.

To estimate the severity of liquefaction extent at a given site, LPI is calculated based on the following equation:

$$\mathbf{LPI} = \int_0^{20} (10 - 0,5z) \times F_L \times d_z$$

where:

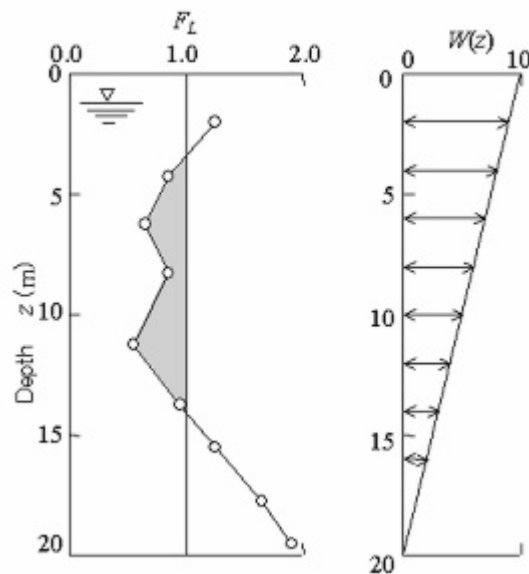
$F_L = 1 - F.S.$  when F.S. less than 1

$F_L = 0$  when F.S. greater than 1

$z$  depth of measurement in meters

Values of LPI range between zero (0) when no test point is characterized as liquefiable and 100 when all points are characterized as susceptible to liquefaction. Iwasaki proposed four (4) discrete categories based on the numeric value of LPI:

- LPI = 0 : Liquefaction risk is very low
- $0 < \text{LPI} \leq 5$  : Liquefaction risk is low
- $5 < \text{LPI} \leq 15$  : Liquefaction risk is high
- LPI > 15 : Liquefaction risk is very high



**Graphical presentation of the LPI calculation procedure**

## Shear-Induced Building Settlement (Ds) calculation procedure

The shear-induced building settlement (Ds) due to liquefaction below the building can be estimated using the relationship developed by Bray and Macedo (2017):

$$\begin{aligned} \ln(D_s) = & c_1 + c_2 * LBS + 0.58 * \ln\left(\tanh\left(\frac{HL}{6}\right)\right) + \\ & 4.59 * \ln(Q) - 0.42 * \ln(Q)^2 - 0.02 * B + \\ & 0.84 * \ln(CAVdp) + 0.41 * \ln(Sa1) + \varepsilon \end{aligned}$$

where Ds is in the units of mm, c1= -8.35 and c2= 0.072 for LBS ≤ 16, and c1= -7.48 and c2= 0.014 otherwise. Q is the building contact pressure in units of kPa, HL is the cumulative thickness of the liquefiable layers in the units of m, B is the building width in the units of m, CAVdp is a standardized version of the cumulative absolute velocity in the units of g-s, Sa1 is 5%-damped pseudo-acceleration response spectral value at a period of 1 s in the units of g, and ε is a normal random variable with zero mean and 0.50 standard deviation in Ln units. The liquefaction-induced building settlement index (LBS) is:

$$LBS = \sum W * \frac{\varepsilon_{shear}}{z} dz$$

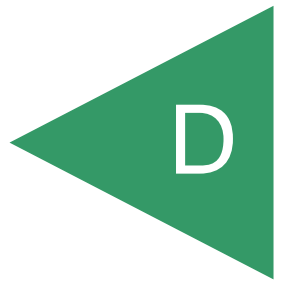
where z (m) is the depth measured from the ground surface > 0, W is a foundation-weighting factor wherein W = 0.0 for z less than Df, which is the embedment depth of the foundation, and W = 1.0 otherwise. The shear strain parameter (ε<sub>shear</sub>) is the liquefaction-induced free-field shear strain (in %) estimated using Zhang et al. (2004). It is calculated based on the estimated Dr of the liquefied soil layer and the calculated safety factor against liquefaction triggering (FSL).

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APPENDIX



## APPENDIX D

### APGD PILE SPECIFICATIONS

#### **Piling Equipment**

The piling equipment used for the project shall conform to the specifications below.

*Piling Rig* – The contractor shall use equipment of adequate torque, crowd force, and power, to achieve the design tip elevation. As a minimum, the piling rig shall be capable of providing a minimum torque of 150,000 ft-lbs, and 25 tons of down crowd thrust.

*Automated Monitoring Equipment* – The drilling rig shall be equipped with an automated monitoring equipment (AME) designed to monitor the pile installation process. During the drilling process, the AME shall record auger depth, drill torque, and elapsed time. During the grouting process, the AME shall record the auger depth, grout pressure, and elapsed time.

*Augers* – The augers shall be capable of creating a minimum 18-inch diameter pile.

*Grouting Equipment* – A grout port shall be located near the tip of the displacement auger. A continuous system of grout mixing, pumping, and agitating equipment shall be utilized. Equipment shall be maintained in good working order to maintain a continuous flow of concrete during auger withdrawal. The grout pump shall be capable of developing displacement pressures of 250-psi.

#### **Pile Installation Procedures**

The following installation procedures may be followed to install the APGD piles.

1. Contractor is responsible for using equipment of adequate torque, crowd, and power to achieve the design tip elevation. The piling rig and the flight augers used for the production pile installation shall be of identical design to that used for the indicator pile test program.
2. The flight auger is advanced until it reaches the design tip elevation. The grout port in the auger tool shall be closed with a plug that prevents soil and/or water from entering the hollow shaft while the auger is advanced into the ground.
3. The flight auger shall be capable of creating a smooth walled shaft with a minimum of 18 inches in diameter (both test piles and production piles shall be a minimum of 18 inches in diameter).
4. A minimum delivery pressure of 250 psi plus the hydraulic pressure developed by the grout column in the drill stem shall be applied to create the pile. The operator shall maintain positive rotation of the displacement auger continuously throughout the grouting process until the displacement element is completely retracted from the ground.

5. The piling rig shall be equipped with automated monitoring equipment (AME) to record the auger depth, drill torque, grout pressure, and elapsed time. All recorded data shall be provided for review.
6. Once the grouted pile shaft is filled with concrete, the steel reinforcing cage shall be inserted into the wet concrete pile. All reinforcing elements shall be fitted with centralizers or clip spacers.

### **Indicator Pile Test Program**

An indicator pile test program must be performed and approved by the City of Los Angeles prior to installation of the production piles. The number of indicator test piles shall be a minimum of 2 test piles, or equivalent to 1 percent of the total number of production piles, whichever is greater. Pile load tests shall be performed from the proposed subgrade elevation.

Compression load tests will be performed on all indicator test piles. Axial compressive load test shall be performed in accordance with ASTM D1143. The test piles and reaction piles shall be considered sacrificial and shall not be utilized for foundation support of the proposed buildings. The allowable pile capacities and pile lengths presented herein are subject to be confirmed, or altered depending on the results of the indicator pile load test program. Additional foundation piles may be necessary if the actual load tests do not meet the recommended allowable loads presented in this report.

Below is a summary of the indicator pile load test program.

- The number of indicator test piles shall be a minimum of 2 test piles, or equivalent to 1 percent of the total number of production piles, whichever is greater.
- Load tests shall be performed on sacrificial test piles in accordance with ASTM D1143 (Axial Compressive Load). The design load shall be held until the measured creep does not exceed 0.005 inch per hour. Piles with a settlement rate exceeding 0.005 inch/hour under the design load during a pile test will be rejected.
- Pile load tests shall be performed to a minimum load equivalent to the ultimate capacity, which is two times the allowable capacity.
- Test piles and reaction piles shall be sacrificial and shall not be incorporated as foundation piles. Sacrificial test piles and reaction piles shall be cut off 3 feet below the finished grade and abandoned in place following the completion of the testing program.
- Gamma-Gamma density logging (GDL) and Low Strain Pile Integrity Tests (PIT) shall be performed on all test piles and reaction piles. GDL shall be performed in accordance with Caltrans CT 233. PIT shall be performed in accordance with ASTM D5882.
- One test pile shall be exhumed from the ground to physically examine the pile integrity.
- Results of the pile load testing will be submitted as a summary letter to the LADBS Grading Division for review and approval.

## **Geotechnical Pile Inspections**

During pile installation, a City of Los Angeles Deputy Grading Inspector shall record and maintain data for each pile, including the following:

- Pile Number
- Installed pile length
- Auger torque vs. depth
- Head pressure inside the tremie pipe vs. depth
- Drilling rate vs. depth
- Concrete volume vs. depth
- Unanticipated site conditions if any

## **Non-Destructive Testing**

None-destructive testing methods shall be employed to evaluate the integrity of the piles installed to provide quality control and assurance of the pile construction method.

- Gamma-Gamma density logging (GDL) and Low Strain Pile Integrity Tests (PIT) shall be performed on all test piles and reaction piles. GDL shall be performed in accordance with Caltrans CT 233. PIT shall be performed in accordance with ASTM D5882.
- Low Strain Pile Integrity Tests (PIT) shall be performed on 10 percent of the production piles.
- If any PIT test indicates a discontinuity within a tested pile, that pile shall be evaluated by the geotechnical and structural engineers. Unsatisfactory piles may be abandoned in place and shall be replaced with replacement piles.

Ann Sewill, General Manager  
Tricia Keane, Executive Officer

City of Los Angeles



LOS ANGELES HOUSING DEPARTMENT  
1200 West 7th Street, 9th Floor  
Los Angeles, CA 90017  
Tel: 213.808.8808  
housing.lacity.org

Daniel Huynh, Assistant General Manager  
Anna E. Ortega, Assistant General Manager  
Luz C. Santiago, Assistant General Manager

Karen Bass, Mayor

DATE: April 20, 2023

TO: Flores Fund, LLC, a California limited liability company, Owner  
Jonathan Yang, Owner Representative

FROM: Marites Cunanan, Senior Management Analyst II *M. Cunanan*  
Los Angeles Housing Department

SUBJECT: **Housing Crisis Act of 2019 (SB 8)**  
**Replacement Unit Determination**  
**RE: 8331-8349 W. 3<sup>rd</sup> St., Los Angeles, CA 90048**

Based on the SB 8 Application for a Replacement Unit Determination (RUD) submitted by Jonathan Yang (Owner Representative) on behalf of Flores Fund, LLC, a California limited liability company (Owner), for the above referenced property located at 8331-8349 W. 3<sup>rd</sup> St. (APN 5511-016-016, Lot 141, 142, 143, 144) (Property) the Los Angeles Housing Department (LAHD) has made the following determination in regards to the above-referenced application. No residential units existed on the property within the last 5 years, and no residential units are subject to replacement as affordable “protected units”.

**PROJECT SITE REQUIREMENTS:**

The Housing Crisis Act of 2019, as amended by SB 8 (California Government Code Section 66300 et seq.), prohibits the approval of any proposed housing development project (“Project”) on a site (“Property”) that will require demolition of existing dwelling units or occupied or vacant “Protected Units” unless the Project replaces those units as specified below. The replacement requirements below apply to the following projects:

- Discretionary Housing Development Projects that receive a final approval from Los Angeles City Planning (LACP) on or after January 1, 2022,
- Ministerial On-Menu Density Bonus, SB 35 and AB 2162 Housing Development Projects that submit an application to LACP on or after January 1, 2022, and
- Ministerial Housing Development Projects that submit a complete set of plans to the Los Angeles Department of Building & Safety (LADBS) for Plan Check and permit on or after January 1, 2022.

Replacement of Existing Dwelling Units

The Project shall provide at least as many residential dwelling units as the greatest number of residential dwelling units that existed on the Property within the past 5 years.

Replacement of Existing or Demolished Protected Units

The Project must also replace all existing or demolished “Protected Units”. Protected Units are those residential dwelling units on the Property that are, or were, within the 5 years prior to the owner’s application for a SB 8 Replacement Unit Determination (SB 8 RUD): **(1)** subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of lower or very low income, **(2)** subject to any form of rent or price control through a public entity’s valid exercise of its police power within the 5 past years **(3)** occupied by lower or very low income households (an affordable Protected Unit), or **(4)** that were withdrawn from rent or lease per the Ellis Act, within the past 10 years.

Whether a unit qualifies as an affordable Protected Unit, is primarily measured by the INCOME level of the occupants (i.e. W-2 forms, tax return, pay stubs, etc.). The Los Angeles Housing Department (LAHD) will send requests for information to each occupant of the existing project. Requests for information can take two (2) or more weeks to be returned. It is the owner's responsibility to work with the occupants to ensure that the requested information is timely produced.

- ***In the absence of occupant income documentation:*** Affordability will default to the percentage of extremely low, very low or low income renters in the jurisdiction as shown in the latest HUD Comprehensive Housing Affordability Strategy (CHAS) database, which as of September 9, 2022, is at 33% extremely low income, 18% very low income and 19% low income for Transit Oriented Communities (TOC) projects and 51% very low income and 19% low income for Density Bonus (DB) projects. In the absence of specific entitlements, the affordability will default to 51% very low income and 19% low income. The remaining 30% of the units are presumed above-low income. All replacement calculations resulting in fractional units shall be rounded up to the next whole number.

Replacement of Protected Units Subject to the Rent Stabilization Ordinance (RSO), Last Occupied by Persons or Families at Moderate Income or Above

The City has the option to require that the Project provide: **(1)** replacement units affordable to low income households for a period of 55 years (rental units subject to a recorded covenant), OR **(2)** require the units to be replaced in compliance with the RSO.

Relocation, Right to Return, Right to Remain:

All occupants of Protected Units (as defined in California Government Code Section 66300(d)(2)(F)(vi)) being displaced by the Project have the right to remain in their units until six (6) months before the start of construction activities with proper notice subject to Chapter 16 (Relocation Assistance) of Division 7, Title I of the California Government Code ("Chapter 16"). However, all **Lower Income Household** (as defined in California Health and Safety Code Section 50079.5) occupants of Protected Units are **also** entitled to: **(a)** Relocation benefits also subject to Chapter 16, and **(b)** the right of first refusal ("Right to Return") to a comparable unit (same bedroom type) at the completed Project. If at the time of lease up or sale (if applicable) of a comparable unit, a returning occupant remains income eligible for an "affordable rent" (as defined in California Health and Safety Code Section 50053) or if for sale, an "affordable housing cost" (as defined in California Health and Safety Code Section 50052.5), owner must also provide the comparable unit at the "affordable rent" or "affordable housing cost", as applicable. This provision does not apply to: **(1)** a Project that consists of a Single Family Dwelling Unit on a site where a Single Family Dwelling unit is demolished, and **(2)** a Project that consists of 100% lower income units except Manager's Unit.

**THE PROPOSED HOUSING DEVELOPMENT PROJECT:**

Per the statement received by LAHD on March 9, 2023, the Owner plans to demolish the existing structure and construct mixed use multifamily development using Density Bonus on the Property.

**PROPERTY STATUS (AKA THE "PROJECT SITE"):**

Owner submitted an Application for a RUD for the Property on March 9, 2023. In order to comply with the required **5-year** look back period, LAHD collected and reviewed data from March 2018 to March 2023.

**Review of Documents:**

Per the Grant Deed, Owner acquired the Property on December 20, 2022.

Department of City Planning (ZIMAS), County Assessor Parcel Information (LUPAMS), DataTree database, Billing Information Management System (BIMS) database, and the Code, Compliance, and Rent Information System (CRIS) database, indicates a use codes of "7200 – Institutional – School (Private) – One Story" (APN 5511-016-016). Google images, an internet search and the RSO Unit supports that the Property contains a commercial building that is used as a daycare.

Per the City of Los Angeles's Listing of Active Businesses on the Open Data portal, the Property address under 8339 W. 3<sup>rd</sup> St. is registered under a business that is providing education services that has been active on the site since 1985.

The LADBS database indicates that the Owner has not applied yet for either a Demolition or a new Building Permit.

**REPLACEMENT UNIT DETERMINATION:**

LAHD has determined that since at least March 2018, the Property has been used as a daycare for commercial purposes. The proposed housing development does not require the demolition of any prohibited types of housing. Further, the provisions of SB 8 do not apply to commercial properties, therefore no SB 8 replacement affordable units are required.

Please note that this RUD will also apply if the proposed project will use either the Transit Oriented Communities (TOC) or Density Bonus (DB) entitlements.

**NOTE: This determination is provisional and is subject to verification by LAHD's Rent Division.**

If you have any questions about this RUD, please contact Doris Kwok at [doris.kwok@lacity.org](mailto:doris.kwok@lacity.org).

cc: Los Angeles Housing Department File  
Planning.PARP@lacity.org, Department of City Planning for discretionary projects, or  
LADBS.ahs@lacity.org, Department of Building and Safety for by-right projects

MAC:dk



**VICINITY MAP**

**SITE : 8331-8339 W. 3<sup>RD</sup> STREET**

**GC MAPPING SERVICE, INC.**  
 3055 WEST VALLEY BOULEVARD  
 ALHAMBRA CA 91803  
 (626) 441-1080, FAX (626) 441-8850  
[gcmapping@radiusmaps.com](mailto:gcmapping@radiusmaps.com)

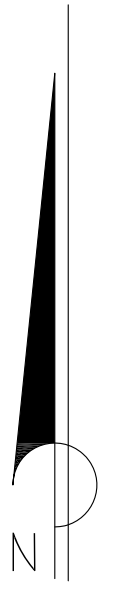




LEGAL: E'LY 26.24 FT. OF LOT 141, AND LOTS 142 TO 144, TRACT 10389(SEE APPLICATION).

# DENSITY BONUS-OFF MENU CONDITIONAL USE PERMIT SITE PLAN REVIEW

C.D. 5  
C.T. 2148.00  
P.A. WILSHIRE



**GC MAPPING SERVICE, INC.**  
3055 WEST VALLEY BOULEVARD  
ALHAMBRA CA 91803  
(626) 441-1080 FAX (626) 441-8850  
GCMAPPING@RADIUSMAPS.COM

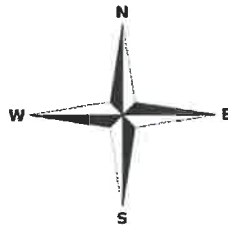
**SITE ADDRESS:**  
8331-8339 W. 3RD ST.

CASE NO.  
DATE: 05-17-2023  
SCALE: 1" = 100'  
USES FIELD  
D.M. 138 B 173  
T.B. PAGE: 633 GRID: A-1

0.44 NET AC.

**SITE PHOTO EXHIBIT**  
**Applicant: Flores Fund LLC**  
**Site Address: 8331 – 8349 W 3<sup>rd</sup> Street**  
**Los Angeles, CA, 90048**

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**SITE PHOTO EXHIBIT**  
**Applicant: Flores Fund LLC**  
**Site Address: 8331 – 8349 W 3<sup>rd</sup> Street**  
**Los Angeles, CA, 90048**

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1. Taken from the SW corner of the project site, W down 3<sup>rd</sup> Street.



2. Taken from the SW corner of the project site, SW across 3<sup>rd</sup> Street.

**SITE PHOTO EXHIBIT**  
**Applicant: Flores Fund LLC**  
**Site Address: 8331 – 8349 W 3<sup>rd</sup> Street**  
**Los Angeles, CA, 90048**

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3. Taken from the SW corner of the project site, S across 3<sup>rd</sup> Street.



4. Taken from the SW corner of the project site, NE into the project site.

**SITE PHOTO EXHIBIT**  
**Applicant: Flores Fund LLC**  
**Site Address: 8331 – 8349 W 3<sup>rd</sup> Street**  
**Los Angeles, CA, 90048**



5. Taken from the SE corner of the project site, SE across 3<sup>rd</sup> Street.



6. Taken from the SE corner of the project site, E down 3<sup>rd</sup> Street.

**SITE PHOTO EXHIBIT**  
**Applicant: Flores Fund LLC**  
**Site Address: 8331 – 8349 W 3<sup>rd</sup> Street**  
**Los Angeles, CA, 90048**



7. Taken from the SE corner of the project site, NW into the project site.



8. Taken from the SE corner of the project site, N up Flores Street.

**SITE PHOTO EXHIBIT**  
**Applicant: Flores Fund LLC**  
**Site Address: 8331 – 8349 W 3<sup>rd</sup> Street**  
**Los Angeles, CA, 90048**



9. Taken from the E side of the project site, W into the site.



10. Taken from the SE corner of the intersection of Magnolia Blvd and Van Nuys Blvd, NW into the project site.

**SITE PHOTO EXHIBIT**  
**Applicant: Flores Fund LLC**  
**Site Address: 8331 – 8349 W 3<sup>rd</sup> Street**  
**Los Angeles, CA, 90048**



11. Taken from the NE corner of the project site, NE across Flores Street.



12. Taken from the NE corner of the project site, W into the adjacent alley.



# LUNA & GLUSHON

A Professional Corporation

DENNIS R. LUNA  
(1946-2016)

16255 VENTURA BOULEVARD, SUITE 950  
ENCINO, CALIFORNIA 91436  
TEL: (818) 907-8755  
FAX: (818) 907-8760

January 8, 2024

## VIA EMAIL

Alice Okumura, City Planning Associate  
200 North Spring Street, Room 763  
Los Angeles, CA 90012

Re: CPC-2023-4573-DB-CU-HCA  
ENV-2023-4574-CE

Dear Ms. Okumura:

Our law firm represents the Flores Street Partnership, the owners of the multi-family residential dwelling at 127 S. Flores Street (the "Flores Building") immediately across the alley from the proposed mixed-use development project at 8331-8349 West Third Street (the "Project").

The Flores Street Partnership strongly opposes Project, as proposed, and, in particular, the Conditional Use ("CU") for density above what is otherwise provided for under state law.

Furthermore, for the record, Flores Street Partnership objects to and questions the Planning Department's setting of a public hearing prior to the California Environmental Quality Act ("CEQA") file being completed. It is impossible for the Partnership, and the rest of the public, to provide complete input regarding the Project without access to the CEQA documents.

As set forth herein, as proposed, the Project cannot be approved.

I. The Findings for a Conditional Use Permit Cannot be Made with Substantial Supporting Evidence.

Abuse of discretion is established if the agency has not proceeded in the manner prescribed by law; the order or decision is not supported by the findings; or the findings are not supported by the evidence. *West Chandler Boulevard Neighborhood Association v. City of Los Angeles* (2011) 198 Cal.App.4th 1506, 1517.

- A. The Project's location, size, height, operations and other significant features will not be compatible with and will adversely affect or further degrade adjacent properties, the surrounding neighborhood, or the public health, welfare, and safety.

In order to find compatibility, the City must determine that the Project, as proposed, lacks any “discord or disharmony” with the adjacent and surrounding properties and is, instead, capable of “coexisting and showing no noteworthy opposing, conflicting, inharmonious, or contradictory qualities.” *Muzzy Ranch Co. v. Solana County Airport Land Use. Com.* (2008) 164 Cal.App.4th 1, 9 (emphasis added).

This Project, as proposed, and particularly with the density above what is otherwise provided for under state law, will not be “compatible with” adjacent properties and the surrounding neighborhoods and will adversely affect the surrounding community.

The height of the Project and proximity to residential dwelling units at 127 S. Flores Street will overwhelm these residential dwelling units, blocking air, light and privacy to their homes and outdoor spaces. The ability to place solar panels on the 127 S. Flores Street building will be made unfeasible, a specific, adverse impact upon the physical environment. Furthermore, the Project includes outdoor balconies along the alley, impacting the privacy of the residents at 127 S. Flores Street.

Notably, the height and mass of the Project is not directly linked to the affordable housing component of the Project, but rather, the Applicant’s desire for commercial space, as well as a density increase above what is otherwise provided for under state law. The Applicant is not entitled to design a project under the guise of “affordable housing” which is otherwise not within the parameters of affordable housing law.

On street parking will render the surrounding neighborhood unlivable for both residents and service workers; will have a specific adverse impact on the commercial businesses; and will discriminate against senior, handicapped and disabled individuals who live in the area and rely on on-street parking, which will be largely eliminated. The failure to provide adequate parking will also create safety issues and hazards for pedestrians. Traffic in the area will be exacerbated. The introduction of significant new (and unstudied, see below) traffic in the alley will not only impact the health of the residents of the nearby residential units, but will create a new, unstudied transportation hazard.

Design changes such as elimination of the commercial space; stepping the building back after a height of forty-five feet; requiring a 20-foot setback across the alley from the multi-family residential building at 127 S. Flores Street; and/or subterranean parking can lessen the adverse impacts of the Project and should be required in order to mitigate the incompatibility of the Project, requesting a CU, to its surroundings.

Furthermore, although the Flores Street Partnership urges denial of the CU, to the extent that such may be granted, the City should impose appropriate conditions, such as:

1. HVAC equipment to be placed indoors to mitigate noise and other impacts to surrounding residences.
2. All exhaust venting, including parking exhaust, to be placed away from residential properties, and directed to the roof.
3. All exterior lighting to be shielded and directed onto the Project site.
4. Construction days to be limited to Monday – Friday.
5. Electric, cable and telephone lines to be placed underground including along the alley.
6. Dedicated parking for moving, delivery, ride sharing, etc. vehicles to be provided within the Project and disallowed in the alley.

B. The Project does *not* substantially conform with the purpose, intent and provisions of the General Plan and Wilshire Community Plan.

The Wilshire Community Plan (“Community Plan”) sets forth the following issues and concerns already affecting the area:

- Need to *preserve* the existing character of residential neighborhoods while accommodating more affordable housing and child care facilities.
- New commercial development needs to be *compatible with* existing buildings in terms of architectural design, bulk and building heights.

The Community Plan further sets forth the following objectives and policies:

- Promote *neighborhood preservation* in all stable residential neighborhoods.

- *Preserve and enhance* the varied and distinct residential character and integrity of existing residential neighborhoods.
- *Promote architectural compatibility* and landscaping for new Multiple Family residential development to protect the character and scale of existing residential neighborhoods.

As set forth above, the Project not only highlights the issues and concerns noted by the Community Plan as already plaguing the area but fails with regard to the Community Plan's objectives and policies regarding neighborhood preservation and architectural compatibility. The Project, as proposed, is not compatible with its surroundings in terms of architectural design, bulk or building height. It will have significant, adverse impacts on the surrounding community and, particularly, on the residential dwelling units at 127 S. Flores Street, directly at odds with the requirements of the Community Plan.

II. The File is Devoid of Evidence Supporting a Class 32 Categorical Exemption.

Under CEQA, a lead agency has the burden to show that substantial evidence supports its determination that the categorical exemption applies. *Citizens for Environmental Responsibility v. State ex rel. 14th District Agricultural Association* (2015) 242 Cal.App.4th 555, 568.

Here, in order to adopt a Class 32 Categorical Exemption pursuant to CEQA Guidelines §15332, the City must have demonstrated, substantial evidence that:

- (a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.
- (b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.
- (c) The project site has no value, as habitat for endangered, rare or threatened species.
- (d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
- (e) The site can be adequately served by all required utilities and public services.

As set forth above, the Project does not comply with (a).

Furthermore, there is no evidence, whatsoever, that the Project would not result in any significant effects relating to traffic, noise, air quality, or water quality or that it can be adequately served by all required utilities and public services. Accordingly, adoption of the Class 32 Categorical Exemption would be in error.

The entitlements for the Project, as proposed, should be denied.

Very truly yours,

LUNA & GLUSHON  
A Professional Corporation

A handwritten signature in black ink, appearing to read "Rob Glushon", written in a cursive style.

ROBERT L. GLUSHON



Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

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## Fwd: Case File Request

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**Sophia Kim** <[sophia.kim@lacity.org](mailto:sophia.kim@lacity.org)>  
To: Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

Tue, Dec 26, 2023 at 12:12 PM

----- Forwarded message -----

From: **Alexis Kelleher** <[akelleher@lunaglushon.com](mailto:akelleher@lunaglushon.com)>

Date: Thu, Dec 21, 2023, 4:10 PM

Subject: Case File Request

To: [sophia.kim@lacity.org](mailto:sophia.kim@lacity.org) <[sophia.kim@lacity.org](mailto:sophia.kim@lacity.org)>

Cc: Kristina Kropp <[kkropp@lunaglushon.com](mailto:kkropp@lunaglushon.com)>, Rob Glushon <[rglushon@lunaglushon.com](mailto:rglushon@lunaglushon.com)>, Arpine Matevosyan <[amatevosyan@lunaglushon.com](mailto:amatevosyan@lunaglushon.com)>

Hello,

I would like to request a complete copy of the following case file:

CPC-2023-4573-DB-CU-HCA

Thank you!

Happy Holidays.

# LUNA & GLUSHON

A Professional Corporation

DENNIS R. LUNA  
(1946-2016)

16255 VENTURA BOULEVARD, SUITE 950  
ENCINO, CALIFORNIA 91436  
TEL: (818) 907-8755  
FAX: (818) 907-8760

December 27, 2023

VIA EMAIL

[Planning.custodianofrecords@lacity.org](mailto:Planning.custodianofrecords@lacity.org)

Re: **Public Records Act Request**

Pursuant to the California Public Records Act (*Government Code* Section 6250 *et seq.*), please provide copies of the following documents which we understand to be held by your agency:

1. All documents in the City Planning file in Case No. CPC-2023-4573-DB-CU-HCA.
2. All documents in the City Planning file in Case No. ENV-2023-4574-CE.

I ask for a determination on this request within ten (10) days of your receipt of it, and an even prompter reply if you can make that determination without having to review the record[s] in question.

If you determine that any or all of the information qualifies for an exemption from disclosure, I ask you to note whether, as is normally the case under the Act, the exemption is discretionary, and if so whether it is necessary in this case to exercise your discretion to withhold the information.

If you determine that some but not all of the information is exempt from disclosure and that you intend to withhold it, I ask that you redact it for the time being and make the rest available as requested.

In any event, please provide a signed notification citing the legal authorities on which you rely if you determine that any or all of the information is exempt and will not be disclosed.

Custodian of Records

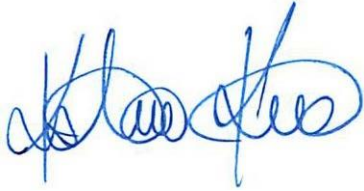
December 27, 2023

Page 2

If I can provide any clarification that will help expedite your attention to my request, please do not hesitate to contact me at any time.

Very truly yours,

LUNA & GLUSHON  
A Professional Corporation

A handwritten signature in blue ink, appearing to read 'Kristina Kropp', with a stylized flourish at the end.

KRISTINA KROPP



P: (626) 381-9248  
F: (626) 389-5414  
E: [info@mitschtsailaw.com](mailto:info@mitschtsailaw.com)



**Mitchell M. Tsai**  
Law Firm

139 South Hudson Avenue  
Suite 200  
Pasadena, California 91101

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**VIA E-MAIL**

January 8, 2024

City of Los Angeles  
200 N. Spring St., Room 763  
Los Angeles, CA 90012  
Em: [alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)

**RE: 8331 W. Third St. Project [CPC-2023-4573-DB-CU-HCA]**

Dear City of Los Angeles,

On behalf of the Western States Regional Council of Carpenters (“**Western Carpenters**” or “**WSRCC**”), my Office is submitting these comments to the City of Los Angeles (“**City**”) for the January 4, 2024 Hearing Officer meeting regarding the 8331 Third W. St. project (“**Project**”).

The Project involves the construction of a new eight-story (100 feet) mixed-use residential building, containing a total of 77 dwelling units with 8 units reserved for Extremely Low Income Households and 11,122 square feet of ground-floor retail. The Project contains a total of 38 vehicle parking stalls located on Levels 2 and 3, and will provide a total of 78 bicycle parking stalls.

The Western Carpenters is a labor union representing 90,000 union carpenters in twelve states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. Individual members of the Western Carpenters live, work, and recreate in the City and surrounding communities and would be directly affected by the Project’s environmental impacts.

The Western Carpenters incorporate by reference all comments raising issues regarding the environmental review for the Project submitted prior to the approval for the Project. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project’s environmental documentation may assert any issue timely raised by other parties).

## **I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY’S ECONOMIC DEVELOPMENT AND ENVIRONMENT**

The City should require the Project to be built using a local workers who have graduated from a Joint Labor-Management Apprenticeship Program approved by the State of California, have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state-approved apprenticeship training program, or who are registered apprentices in a state-approved apprenticeship training program.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

[A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

[L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California’s workforce can positively affect returns on climate mitigation efforts. In other words,

well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.<sup>1</sup>

Furthermore, workforce policies have significant environmental benefits given that they improve an area’s jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the “[u]se of a local state-certified apprenticeship program” can result in air pollutant reductions.<sup>2</sup>

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.<sup>3</sup>

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.<sup>4</sup> Some municipalities have even tied local hire and

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<sup>1</sup> California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* <https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf>.

<sup>2</sup> South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10>.

<sup>3</sup> California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* <https://cprroundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf>

<sup>4</sup> Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? *Journal of the American Planning Association* 72 (4), 475-490, 482, *available at* <http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf>.

other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city’s First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 (“**AB2011**”). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

## **II. THE CITY SHOULD IMPOSE TRAINING REQUIREMENTS FOR THE PROJECT’S CONSTRUCTION ACTIVITIES TO PREVENT COMMUNITY SPREAD OF COVID-19 AND OTHER INFECTIOUS DISEASES**

Construction work has been defined as a Lower to High-risk activity for COVID-19 spread by the Occupational Safety and Health Administration. Recently, several construction sites have been identified as sources of community spread of COVID-19.<sup>5</sup>

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<sup>5</sup> Santa Clara County Public Health (June 12, 2020) COVID-19 CASES AT CONSTRUCTION SITES HIGHLIGHT NEED FOR CONTINUED VIGILANCE IN SECTORS THAT HAVE REOPENED, *available at* <https://www.sccgov.org/sites/covid19/Pages/press-release-06-12-2020-cases-at-construction-sites.aspx>.

The Western Carpenters recommend that the City adopt additional requirements to mitigate public health risks from the Project's construction activities. Western Carpenters requests that the City require safe on-site construction work practices as well as training and certification for any construction workers on the Project Site.

In particular, based upon the Western Carpenters' experience with safe construction site work practices, Western Carpenters recommends that the City require that while construction activities are being conducted at the Project Site:

**Construction Site Design:**

- The Project Site will be limited to two controlled entry points.
- Entry points will have temperature screening technicians taking temperature readings when the entry point is open.
- The Temperature Screening Site Plan shows details regarding access to the Project Site and Project Site logistics for conducting temperature screening.
- A 48-hour advance notice will be provided to all trades prior to the first day of temperature screening.
- The perimeter fence directly adjacent to the entry points will be clearly marked indicating the appropriate 6-foot social distancing position for when you approach the screening area. Please reference the Apex temperature screening site map for additional details.
- There will be clear signage posted at the project site directing you through temperature screening.
- Provide hand washing stations throughout the construction site.

**Testing Procedures:**

- The temperature screening being used are non-contact devices.
- Temperature readings will not be recorded.

- Personnel will be screened upon entering the testing center and should only take 1-2 seconds per individual.
- Hard hats, head coverings, sweat, dirt, sunscreen or any other cosmetics must be removed on the forehead before temperature screening.
- Anyone who refuses to submit to a temperature screening or does not answer the health screening questions will be refused access to the Project Site.
- Screening will be performed at both entrances from 5:30 am to 7:30 am.; main gate [ZONE 1] and personnel gate [ZONE 2]
- After 7:30 am only the main gate entrance [ZONE 1] will continue to be used for temperature testing for anybody gaining entry to the project site such as returning personnel, deliveries, and visitors.
- If the digital thermometer displays a temperature reading above 100.0 degrees Fahrenheit, a second reading will be taken to verify an accurate reading.
- If the second reading confirms an elevated temperature, DHS will instruct the individual that he/she will not be allowed to enter the Project Site. DHS will also instruct the individual to promptly notify his/her supervisor and his/her human resources (HR) representative and provide them with a copy of Annex A.

### **Planning**

- Require the development of an Infectious Disease Preparedness and Response Plan that will include basic infection prevention measures (requiring the use of personal protection equipment), policies and procedures for prompt identification and isolation of sick individuals, social distancing (prohibiting gatherings of no more than 10 people including all-hands meetings and all-hands lunches)

communication and training and workplace controls that meet standards that may be promulgated by the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health or applicable local public health agencies.<sup>6</sup>

The United Brotherhood of Carpenters and Carpenters International Training Fund has developed COVID-19 Training and Certification to ensure that Carpenter union members and apprentices conduct safe work practices. The Agency should require that all construction workers undergo COVID-19 Training and Certification before being allowed to conduct construction activities at the Project Site.

The Western Carpenters have also developed a rigorous Infection Control Risk Assessment (“**ICRA**”) training program to ensure it delivers a workforce that understands how to identify and control infection risks by implementing protocols to protect themselves and all others during renovation and construction projects in healthcare environments.<sup>7</sup>

ICRA protocols are intended to contain pathogens, control airflow, and protect patients during the construction, maintenance and renovation of healthcare facilities. ICRA protocols prevent cross contamination, minimizing the risk of secondary infections in patients at hospital facilities.

The City should require the Project to be built using a workforce trained in ICRA protocols.

### **III. THE CITY SHOULD PREPARE AN ENVIRONMENTAL IMPACT REPORT FOR THE PROJECT**

CEQA is a California statute designed to inform decision makers and the public about the potential, significant environmental effects of a project. 14 California Code of

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<sup>6</sup> See also The Center for Construction Research and Training, North America’s Building Trades Unions (April 27 2020) NABTU and CPWR COVID-19 Standards for U.S. Construction Sites, available at [https://www.cpwr.com/sites/default/files/NABTU\\_CPWR\\_Standards\\_COVID-19.pdf](https://www.cpwr.com/sites/default/files/NABTU_CPWR_Standards_COVID-19.pdf); Los Angeles County Department of Public Works (2020) Guidelines for Construction Sites During COVID-19 Pandemic, available at [https://dpw.lacounty.gov/building-and-safety/docs/pw\\_guidelines-construction-sites.pdf](https://dpw.lacounty.gov/building-and-safety/docs/pw_guidelines-construction-sites.pdf).

<sup>7</sup> For details concerning Southwest Carpenters’s ICRA training program, see <https://icrahealthcare.com/>.

Regulations (“**CEQA Guidelines**”) § 15002(a)(1).<sup>8</sup> At its core, “[i]ts purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made.” *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.

To achieve this purpose, CEQA mandates preparation of an Environmental Impact Report (“**EIR**”) for projects so that the foreseeable impacts of pursuing the project can be understood and weighed. *Communities for a Better Environment v. Richmond* (2010) 184 Cal. App. 4th 70, 80. The EIR requirement “is the heart of CEQA.” CEQA Guidelines, § 15003(a).

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard, under which an agency must prepare an EIR whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal. App. 4th 1597, 1602; *Friends of "B" St. v. City of Hayward* (1980) 106 Cal. 3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." PRC § 21151; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal. App. 3d 68, 75; *Jensen v. City of Santa Rosa* (2018) 23 Cal. App. 5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. PRC §§ 21100(a), 21151; CEQA Guidelines § 15064(a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal. App. 4th 768, 785. In such a situation, the agency must adopt a negative declaration. PRC § 21080(c)(1); CEQA Guidelines §§ 15063(b)(2), 15064(f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." PRC § 21068; CEQA Guidelines §

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<sup>8</sup> The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 *et seq.*, are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. (Cal. Pub. Res. Code § 21083.) The CEQA Guidelines are given “great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous.” *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal. 4th 204, 217.



15382. A project "may" have a significant effect on the environment if there is a "reasonable probability" that it will result in a significant impact. *No Oil, Inc. v. City of Los Angeles*, 13 Cal. 3d at 83 fn. 16; *Sundstrom v. County of Mendocino* (1988) 202 Cal. App. 3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines § 15063(b)(1). See *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal. App. 4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrig. Dist. v. City of Selma* (2012) 204 Cal. App. 4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal. App. 4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal. App. 4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal. App. 4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal. App. 3d 748, 754; *Sundstrom v. County of Mendocino* (1988) 202 Cal. App. 3d 296, 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen v. City of Santa Rosa* (2018) 23 Cal. App. 5th 877, 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal. App. 5th 161, 183; *Stanislaus Audubon Soc'y, Inc. v. County of Stanislaus* (1995) 33 Cal. App. 4th 144, 150; *Brentwood Ass'n for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal. App. 3d 491; *Friends of "B" St. v. City of Hayward* (1980) 106 Cal. App. 3d 988; CEQA Guidelines § 15064(f)(1).

As there is a fair argument that the Project will have a significant effect on the environment, as discussed next, the "low threshold" standard for preparation of a Project-specific EIR is triggered and the City should do so to comply with CEQA.

#### **IV. THE CITY SHOULD DETERMINE THAT THE PROJECT DOES NOT QUALIFY FOR THE CLASS 32 CEQA EXEMPTION**

CEQA exemptions must be construed narrowly. See *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 966. With regard to Class 32 exemptions for in-fill development projects, the project must meet all of the conditions identified in CEQA Guidelines section 15332, as follows:

- (a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations;

- (b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses;
- (c) The project site has no value, as habitat for endangered, rare or threatened species;
- (d) Approval of the project would not result in *any* significant effects relating to traffic, noise, air quality, or water quality; and
- (e) The site can be adequately served by all required utilities and public services.

Additionally, pursuant to CEQA Guidelines section 15300.2(b), all exemptions “are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.”

Moreover, categorical exemptions are not absolute. Even if a project fits into a categorical exemption class, the agency must consider whether a codified exception to exemption applies. Guidelines § 15300.2. A project falling within a categorical exemption may require environmental review if the project is subject to exceptions-to-the-exemptions listed under CEQA Guidelines § 15300.2, which include projects involving: (a) locations involving environmental resources of hazardous or critical concern; (b) significant cumulative impact of successive projects of the same type in the same place; (c) reasonable possibility of significant environmental effect due to unusual circumstances; (d) damage to scenic resources on State scenic highways; (e) locations listed as a hazardous waste site; or (f) substantial adverse changes to a historical resource.

Here, the Project fails to fulfil all of these requirements, as follows. Thus, it does not qualify for a Class 32 CEQA exemption.

A. The Project Is Inconsistent with the General Plan, Zoning Regulations, and Municipal Code

Each California city and county must adopt a comprehensive, long-term general plan governing development. *Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 352, citing Gov. Code §§ 65030, 65300. The general plan sits at the top of the land use planning hierarchy, and serves as a “constitution” or

“charter” for all future development. *DeVita v. County of Napa* (1995) 9 Cal.4th 763, 773; *Lesher Communications, Inc. v. City of Walnut Creek* (1990) 52 Cal.3d 531, 540.

General plan consistency is “the linchpin of California’s land use and development laws; it is the principle which infused the concept of planned growth with the force of law.” *Debottari v. Norco City Council* (1985) 171 Cal.App.3d 1204, 1213. It is well established that development projects may not be approved if they interfere with, or frustrate, the general plan’s policies and objectives. See *Napa Citizens*, 91 Cal.App.4th at 378-79; see also *Lesher*, 52 Cal.3d at 544.

Here, the Project requests numerous departures from the ordinary limits permitted by the General Plan and zoning designations, including but not limited to a 45% density increase, a floor area ratio increase, a height increase, a 75% open space reduction, a setback reduction, and a loading space requirement waiver. Given that the deviations have not yet been approved, there is a colorful argument that the Project is inconsistent with the General Plan and all applicable zoning regulations, rendering it ineligible for a Class 32 CEQA exemption.

Moreover, the Project’s request for three additional incentives beyond the base incentives appears to be inconsistent with the City’s Municipal Code. The Municipal Code, section 12.22(a)(31) provides that a project located in a transit oriented community may be eligible for *up to* three additional incentives in addition to base incentives based upon Gov. Code 65915(d)(2), depending on how many units the project designates for affordable housing. Here, the requests more than three incentives and is therefore inconsistent with the municipal code.

The Project’s inconsistencies with the City’s General Plan, Zoning Regulations, and Municipal Code all indicate that the Project is ineligible for a Class 32 CEQA exemption.

#### B. The Project May Cause Significant Environmental Effects

CEQA exemptions are reserved for projects without potential to have significant environmental effects. See *Salmon Protection & Watershed Network v. County of Marin* (2004) 125 Cal.App.4th 1098, 1107 [“If a project may have a significant effect on the environment, CEQA review must occur”]. The Project at hand has the potential to cause a number of significant environmental effects.

The very nature of the Project, i.e. the construction of a new 8-story mixed use project with 77 residential units and commercial space in place of a vacant lot creates

potentially significant traffic, air quality, and noise issues stemming from the sheer increase in density and intensity of land use on the Project site. Coupled with the facts that the neighborhood already experiences overcrowded streets and limited parking and that the construction of the Project may involve road closures, street detours, and loud construction equipment, the Project has the potential to cause significant traffic, air quality, and noise impacts. Such impacts are of particular concern to the nearby sensitive receptors, including the nearby Palihouse West Hollywood hotel which is only 0.1 miles away from the Project.

Without any Project-specific analysis quantifying the Project’s anticipated traffic, air quality, and noise impacts, which the Project application does not even attempt to quantify, the assertion that the Project will not have any significant impacts is merely speculative. Thus, the Class 32 CEQA exemption is inapplicable.

C. There Is No Evidence that The Project Site Can Be Adequately Served by All Required Utilities and Public Services.

Under CEQA Guidelines section 15332(d), there must be evidence that the Project site can be adequately served by all required utilities and public services. Here, there is no such evidence that the Project site is equipped to handle the addition of approximately 77 residential units. Thus, for this reason too, the Project should not qualify for the Class 32 exemption.

D. The Project May Cause Cumulative Impacts

Pursuant to CEQA Guidelines section 15300.2(b), all exemptions “are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.” Here, there is a proposal to build a mixed-use 126 apartment complex just 0.5 miles away from the Project site at 400 S. San Vicente Blvd.<sup>9</sup> Additionally, a 45 mixed-use apartment complex is proposed just 0.4 miles away from the Project at 8550 W. 83<sup>rd</sup> St.<sup>10</sup>

The Project, along with the numerous other nearby projects, signal not only that the Project may be unnecessary but also that it may collectively contribute to potentially significant cumulative impacts on air quality, noise, and traffic congestion in the

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<sup>9</sup> <https://la.urbanize.city/post/proposed-beverly-grove-apartments-start-move-forward-400-s-san-vicente-boulevard>

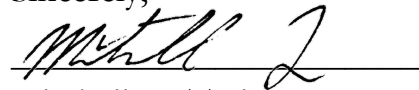
<sup>10</sup> <https://la.urbanize.city/post/45-apartments-retail-planned-8550-w-3rd-street-beverly-grove>

neighborhood. For these reasons too, the Class 32 CEQA exemption is not applicable.

## V. CONCLUSION

In accordance with the above, WSRCC requests that the City require a local and trained workforce, impose training requirements for the project's construction activities to prevent community spread of COVID-19 and other infectious diseases, and determine that the Project is not exempt from CEQA and prepare an EIR for the Project. Should the City have any questions, please feel free to reach out to our office.

Sincerely,



Mitchell M. Tsai, Esq.

Attorneys for Western States

Regional Council of Carpenters

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

**EXHIBIT A**



Technical Consultation, Data Analysis and  
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March 8, 2021

Mitchell M. Tsai  
155 South El Molino, Suite 104  
Pasadena, CA 91101

**Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling**

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Dear Mr. Tsai,

Soil Water Air Protection Enterprise (“SWAPE”) is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas (“GHG”) emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

### Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model (“CalEEMod”) is a “statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects.”<sup>1</sup> CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.<sup>2</sup>

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.<sup>3</sup>

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<sup>1</sup> “California Emissions Estimator Model.” CAPCOA, 2017, available at: <http://www.aqmd.gov/caleemod/home>.

<sup>2</sup> “California Emissions Estimator Model.” CAPCOA, 2017, available at: <http://www.aqmd.gov/caleemod/home>.

<sup>3</sup> “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled (“VMT”) associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.<sup>4</sup>

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

$$\text{“VMT}_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$$

Where:

$n$  = Number of land uses being modeled.”<sup>5</sup>

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

$$\text{“Emissions}_{\text{pollutant}} = \text{VMT} * \text{EF}_{\text{running,pollutant}}$$

Where:

$\text{Emissions}_{\text{pollutant}}$  = emissions from vehicle running for each pollutant

VMT = vehicle miles traveled

$\text{EF}_{\text{running,pollutant}}$  = emission factor for running emissions.”<sup>6</sup>

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

## Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.<sup>7</sup> In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act (“CEQA”) requires that such changes be justified by substantial evidence.<sup>8</sup> The default number of construction-related worker trips is calculated by multiplying the

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<sup>4</sup> “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/02\\_appendix-a2016-3-2.pdf?sfvrsn=6](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 14-15.

<sup>5</sup> “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/02\\_appendix-a2016-3-2.pdf?sfvrsn=6](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 23.

<sup>6</sup> “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/02\\_appendix-a2016-3-2.pdf?sfvrsn=6](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 15.

<sup>7</sup> “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 34.

<sup>8</sup> CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 1, 9.



number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.<sup>9</sup> Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively.”<sup>10</sup> Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.<sup>11</sup> The operational home-to-work vehicle trip lengths are:

“[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings” (emphasis added).<sup>12</sup>

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).<sup>13</sup>

Worker Trip Length by Air Basin		
Air Basin	Rural (miles)	Urban (miles)
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
<b>Average</b>	<b>16.47</b>	<b>11.17</b>
<b>Minimum</b>	<b>10.80</b>	<b>10.80</b>
<b>Maximum</b>	<b>19.80</b>	<b>14.70</b>
<b>Range</b>	<b>9.00</b>	<b>3.90</b>

<sup>9</sup> “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/01\\_user-39-s-guide2016-3-2\\_15november2017.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 34.

<sup>10</sup> “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/02\\_appendix-a2016-3-2.pdf?sfvrsn=6](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 15.

<sup>11</sup> “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/02\\_appendix-a2016-3-2.pdf?sfvrsn=6](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 14.

<sup>12</sup> “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/02\\_appendix-a2016-3-2.pdf?sfvrsn=6](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 21.

<sup>13</sup> “Appendix D Default Data Tables.” CAPCOA, October 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/05\\_appendix-d2016-3-2.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4), p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8- miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7- miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

**Practical Application of a Local Hire Requirement and Associated Impact**

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan (“Project”) located in the City of Claremont (“City”). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.<sup>14</sup> In an effort to evaluate the potential for a local hire provision to reduce the Project’s construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

<b>Local Hire Provision Net Change</b>	
<b>Without Local Hire Provision</b>	
Total Construction GHG Emissions (MT CO <sub>2</sub> e)	3,623
Amortized Construction GHG Emissions (MT CO <sub>2</sub> e/year)	120.77
<b>With Local Hire Provision</b>	
Total Construction GHG Emissions (MT CO <sub>2</sub> e)	3,024
Amortized Construction GHG Emissions (MT CO <sub>2</sub> e/year)	100.80
<b>% Decrease in Construction-related GHG Emissions</b>	<b>17%</b>

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project’s urbanization level and location.

<sup>14</sup> “Appendix D Default Data Tables.” CAPCOA, October 2017, available at: [http://www.aqmd.gov/docs/default-source/caleemod/05\\_appendix-d2016-3-2.pdf?sfvrsn=4](http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4), p. D-85.

## Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

A handwritten signature in blue ink that reads "Matt Hagemann".

Matt Hagemann, P.G., C.Hg.

A handwritten signature in blue ink that reads "Paul Rosenfeld".

Paul E. Rosenfeld, Ph.D.

## Attachment A

<b>Location Type</b>	<b>Location Name</b>	<b>Rural H-W (miles)</b>	<b>Urban H-W (miles)</b>
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

<b>Worker Trip Length by Air Basin</b>		
<b>Air Basin</b>	<b>Rural (miles)</b>	<b>Urban (miles)</b>
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
<b>Average</b>	<b>16.47</b>	<b>11.17</b>
<b>Minimum</b>	<b>10.80</b>	<b>10.80</b>
<b>Maximum</b>	<b>19.80</b>	<b>14.70</b>
<b>Range</b>	<b>9.00</b>	<b>3.90</b>

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**Village South Specific Plan (Proposed)**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
<b>Maximum</b>	<b>4.1619</b>	<b>4.1142</b>	<b>6.1625</b>	<b>0.0189</b>	<b>1.3058</b>	<b>0.1201</b>	<b>1.4259</b>	<b>0.3460</b>	<b>0.1128</b>	<b>0.4588</b>	<b>0.0000</b>	<b>1,721.6826</b>	<b>1,721.6826</b>	<b>0.1294</b>	<b>0.0000</b>	<b>1,724.9187</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
<b>Maximum</b>	<b>4.1619</b>	<b>4.1142</b>	<b>6.1625</b>	<b>0.0189</b>	<b>1.3058</b>	<b>0.1201</b>	<b>1.4259</b>	<b>0.3460</b>	<b>0.1128</b>	<b>0.4588</b>	<b>0.0000</b>	<b>1,721.6823</b>	<b>1,721.6823</b>	<b>0.1294</b>	<b>0.0000</b>	<b>1,724.9183</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.4103	1.4103
2	12-1-2021	2-28-2022	1.3613	1.3613
3	3-1-2022	5-31-2022	1.1985	1.1985
4	6-1-2022	8-31-2022	1.1921	1.1921
5	9-1-2022	11-30-2022	1.1918	1.1918
6	12-1-2022	2-28-2023	1.0774	1.0774
7	3-1-2023	5-31-2023	1.0320	1.0320
8	6-1-2023	8-31-2023	1.0260	1.0260

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9	9-1-2023	11-30-2023	1.0265	1.0265
10	12-1-2023	2-29-2024	2.8857	2.8857
11	3-1-2024	5-31-2024	1.6207	1.6207
		Highest	2.8857	2.8857

**2.2 Overall Operational**  
**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
<b>Total</b>	<b>6.8692</b>	<b>9.5223</b>	<b>30.3407</b>	<b>0.0914</b>	<b>7.7979</b>	<b>0.2260</b>	<b>8.0240</b>	<b>2.0895</b>	<b>0.2219</b>	<b>2.3114</b>	<b>236.9712</b>	<b>12,294.1807</b>	<b>12,531.1519</b>	<b>15.7904</b>	<b>0.1260</b>	<b>12,963.4751</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
<b>Total</b>	<b>6.8692</b>	<b>9.5223</b>	<b>30.3407</b>	<b>0.0914</b>	<b>7.7979</b>	<b>0.2260</b>	<b>8.0240</b>	<b>2.0895</b>	<b>0.2219</b>	<b>2.3114</b>	<b>236.9712</b>	<b>12,294.1807</b>	<b>12,531.1519</b>	<b>15.7904</b>	<b>0.1260</b>	<b>12,963.4751</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 112.5**

**Acres of Paving: 0**

**Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT



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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
<b>Total</b>	<b>0.0475</b>	<b>0.4716</b>	<b>0.3235</b>	<b>5.8000e-004</b>	<b>0.0496</b>	<b>0.0233</b>	<b>0.0729</b>	<b>7.5100e-003</b>	<b>0.0216</b>	<b>0.0291</b>	<b>0.0000</b>	<b>51.0012</b>	<b>51.0012</b>	<b>0.0144</b>	<b>0.0000</b>	<b>51.3601</b>

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**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
<b>Total</b>	<b>2.9000e-003</b>	<b>0.0641</b>	<b>0.0233</b>	<b>2.0000e-004</b>	<b>6.4100e-003</b>	<b>2.1000e-004</b>	<b>6.6200e-003</b>	<b>1.7300e-003</b>	<b>2.0000e-004</b>	<b>1.9300e-003</b>	<b>0.0000</b>	<b>19.6816</b>	<b>19.6816</b>	<b>1.2800e-003</b>	<b>0.0000</b>	<b>19.7136</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
<b>Total</b>	<b>0.0475</b>	<b>0.4716</b>	<b>0.3235</b>	<b>5.8000e-004</b>	<b>0.0496</b>	<b>0.0233</b>	<b>0.0729</b>	<b>7.5100e-003</b>	<b>0.0216</b>	<b>0.0291</b>	<b>0.0000</b>	<b>51.0011</b>	<b>51.0011</b>	<b>0.0144</b>	<b>0.0000</b>	<b>51.3600</b>

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**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
<b>Total</b>	<b>2.9000e-003</b>	<b>0.0641</b>	<b>0.0233</b>	<b>2.0000e-004</b>	<b>6.4100e-003</b>	<b>2.1000e-004</b>	<b>6.6200e-003</b>	<b>1.7300e-003</b>	<b>2.0000e-004</b>	<b>1.9300e-003</b>	<b>0.0000</b>	<b>19.6816</b>	<b>19.6816</b>	<b>1.2800e-003</b>	<b>0.0000</b>	<b>19.7136</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
<b>Total</b>	<b>0.0389</b>	<b>0.4050</b>	<b>0.2115</b>	<b>3.8000e-004</b>	<b>0.1807</b>	<b>0.0204</b>	<b>0.2011</b>	<b>0.0993</b>	<b>0.0188</b>	<b>0.1181</b>	<b>0.0000</b>	<b>33.4357</b>	<b>33.4357</b>	<b>0.0108</b>	<b>0.0000</b>	<b>33.7061</b>

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**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
<b>Total</b>	<b>7.7000e-004</b>	<b>6.0000e-004</b>	<b>6.8100e-003</b>	<b>2.0000e-005</b>	<b>1.9700e-003</b>	<b>2.0000e-005</b>	<b>1.9900e-003</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.7801</b>	<b>1.7801</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7814</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
<b>Total</b>	<b>0.0389</b>	<b>0.4050</b>	<b>0.2115</b>	<b>3.8000e-004</b>	<b>0.1807</b>	<b>0.0204</b>	<b>0.2011</b>	<b>0.0993</b>	<b>0.0188</b>	<b>0.1181</b>	<b>0.0000</b>	<b>33.4357</b>	<b>33.4357</b>	<b>0.0108</b>	<b>0.0000</b>	<b>33.7060</b>

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**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
<b>Total</b>	<b>7.7000e-004</b>	<b>6.0000e-004</b>	<b>6.8100e-003</b>	<b>2.0000e-005</b>	<b>1.9700e-003</b>	<b>2.0000e-005</b>	<b>1.9900e-003</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.7801</b>	<b>1.7801</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7814</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
<b>Total</b>	<b>0.0796</b>	<b>0.8816</b>	<b>0.5867</b>	<b>1.1800e-003</b>	<b>0.1741</b>	<b>0.0377</b>	<b>0.2118</b>	<b>0.0693</b>	<b>0.0347</b>	<b>0.1040</b>	<b>0.0000</b>	<b>103.5405</b>	<b>103.5405</b>	<b>0.0335</b>	<b>0.0000</b>	<b>104.3776</b>

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**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
<b>Total</b>	<b>1.6400e-003</b>	<b>1.2700e-003</b>	<b>0.0144</b>	<b>4.0000e-005</b>	<b>4.1600e-003</b>	<b>3.0000e-005</b>	<b>4.2000e-003</b>	<b>1.1100e-003</b>	<b>3.0000e-005</b>	<b>1.1400e-003</b>	<b>0.0000</b>	<b>3.7579</b>	<b>3.7579</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.7607</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
<b>Total</b>	<b>0.0796</b>	<b>0.8816</b>	<b>0.5867</b>	<b>1.1800e-003</b>	<b>0.1741</b>	<b>0.0377</b>	<b>0.2118</b>	<b>0.0693</b>	<b>0.0347</b>	<b>0.1040</b>	<b>0.0000</b>	<b>103.5403</b>	<b>103.5403</b>	<b>0.0335</b>	<b>0.0000</b>	<b>104.3775</b>

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**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
<b>Total</b>	<b>1.6400e-003</b>	<b>1.2700e-003</b>	<b>0.0144</b>	<b>4.0000e-005</b>	<b>4.1600e-003</b>	<b>3.0000e-005</b>	<b>4.2000e-003</b>	<b>1.1100e-003</b>	<b>3.0000e-005</b>	<b>1.1400e-003</b>	<b>0.0000</b>	<b>3.7579</b>	<b>3.7579</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.7607</b>

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
<b>Total</b>	<b>0.0127</b>	<b>0.1360</b>	<b>0.1017</b>	<b>2.2000e-004</b>	<b>0.0807</b>	<b>5.7200e-003</b>	<b>0.0865</b>	<b>0.0180</b>	<b>5.2600e-003</b>	<b>0.0233</b>	<b>0.0000</b>	<b>19.0871</b>	<b>19.0871</b>	<b>6.1700e-003</b>	<b>0.0000</b>	<b>19.2414</b>

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**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
<b>Total</b>	<b>2.8000e-004</b>	<b>2.1000e-004</b>	<b>2.4400e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>2.0000e-004</b>	<b>1.0000e-005</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.6679</b>	<b>0.6679</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6684</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
<b>Total</b>	<b>0.0127</b>	<b>0.1360</b>	<b>0.1017</b>	<b>2.2000e-004</b>	<b>0.0807</b>	<b>5.7200e-003</b>	<b>0.0865</b>	<b>0.0180</b>	<b>5.2600e-003</b>	<b>0.0233</b>	<b>0.0000</b>	<b>19.0871</b>	<b>19.0871</b>	<b>6.1700e-003</b>	<b>0.0000</b>	<b>19.2414</b>



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**3.4 Grading - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
<b>Total</b>	<b>2.8000e-004</b>	<b>2.1000e-004</b>	<b>2.4400e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>2.0000e-004</b>	<b>1.0000e-005</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.6679</b>	<b>0.6679</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6684</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
<b>Total</b>	<b>0.2158</b>	<b>1.9754</b>	<b>2.0700</b>	<b>3.4100e-003</b>		<b>0.1023</b>	<b>0.1023</b>		<b>0.0963</b>	<b>0.0963</b>	<b>0.0000</b>	<b>293.1324</b>	<b>293.1324</b>	<b>0.0702</b>	<b>0.0000</b>	<b>294.8881</b>

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**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
<b>Total</b>	<b>0.4616</b>	<b>2.0027</b>	<b>3.9885</b>	<b>0.0152</b>	<b>1.2243</b>	<b>0.0121</b>	<b>1.2363</b>	<b>0.3278</b>	<b>0.0112</b>	<b>0.3390</b>	<b>0.0000</b>	<b>1,408.7952</b>	<b>1,408.7952</b>	<b>0.0530</b>	<b>0.0000</b>	<b>1,410.1208</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
<b>Total</b>	<b>0.2158</b>	<b>1.9754</b>	<b>2.0700</b>	<b>3.4100e-003</b>		<b>0.1023</b>	<b>0.1023</b>		<b>0.0963</b>	<b>0.0963</b>	<b>0.0000</b>	<b>293.1321</b>	<b>293.1321</b>	<b>0.0702</b>	<b>0.0000</b>	<b>294.8877</b>

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**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
<b>Total</b>	<b>0.4616</b>	<b>2.0027</b>	<b>3.9885</b>	<b>0.0152</b>	<b>1.2243</b>	<b>0.0121</b>	<b>1.2363</b>	<b>0.3278</b>	<b>0.0112</b>	<b>0.3390</b>	<b>0.0000</b>	<b>1,408.7952</b>	<b>1,408.7952</b>	<b>0.0530</b>	<b>0.0000</b>	<b>1,410.1208</b>

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
<b>Total</b>	<b>0.1942</b>	<b>1.7765</b>	<b>2.0061</b>	<b>3.3300e-003</b>		<b>0.0864</b>	<b>0.0864</b>		<b>0.0813</b>	<b>0.0813</b>	<b>0.0000</b>	<b>286.2789</b>	<b>286.2789</b>	<b>0.0681</b>	<b>0.0000</b>	<b>287.9814</b>

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**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
<b>Total</b>	<b>0.4135</b>	<b>1.5218</b>	<b>3.5707</b>	<b>0.0144</b>	<b>1.1953</b>	<b>9.8700e-003</b>	<b>1.2051</b>	<b>0.3200</b>	<b>9.1400e-003</b>	<b>0.3292</b>	<b>0.0000</b>	<b>1,327.3369</b>	<b>1,327.3369</b>	<b>0.0462</b>	<b>0.0000</b>	<b>1,328.4916</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
<b>Total</b>	<b>0.1942</b>	<b>1.7765</b>	<b>2.0061</b>	<b>3.3300e-003</b>		<b>0.0864</b>	<b>0.0864</b>		<b>0.0813</b>	<b>0.0813</b>	<b>0.0000</b>	<b>286.2785</b>	<b>286.2785</b>	<b>0.0681</b>	<b>0.0000</b>	<b>287.9811</b>

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**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
<b>Total</b>	<b>0.4135</b>	<b>1.5218</b>	<b>3.5707</b>	<b>0.0144</b>	<b>1.1953</b>	<b>9.8700e-003</b>	<b>1.2051</b>	<b>0.3200</b>	<b>9.1400e-003</b>	<b>0.3292</b>	<b>0.0000</b>	<b>1,327.3369</b>	<b>1,327.3369</b>	<b>0.0462</b>	<b>0.0000</b>	<b>1,328.4916</b>

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>6.7100e-003</b>	<b>0.0663</b>	<b>0.0948</b>	<b>1.5000e-004</b>		<b>3.3200e-003</b>	<b>3.3200e-003</b>		<b>3.0500e-003</b>	<b>3.0500e-003</b>	<b>0.0000</b>	<b>13.0175</b>	<b>13.0175</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>13.1227</b>

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**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
<b>Total</b>	<b>3.7000e-004</b>	<b>2.7000e-004</b>	<b>3.1200e-003</b>	<b>1.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0000e-005</b>	<b>1.0800e-003</b>	<b>2.8000e-004</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.8963</b>	<b>0.8963</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8968</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>6.7100e-003</b>	<b>0.0663</b>	<b>0.0948</b>	<b>1.5000e-004</b>		<b>3.3200e-003</b>	<b>3.3200e-003</b>		<b>3.0500e-003</b>	<b>3.0500e-003</b>	<b>0.0000</b>	<b>13.0175</b>	<b>13.0175</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>13.1227</b>

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**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
<b>Total</b>	<b>3.7000e-004</b>	<b>2.7000e-004</b>	<b>3.1200e-003</b>	<b>1.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0000e-005</b>	<b>1.0800e-003</b>	<b>2.8000e-004</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.8963</b>	<b>0.8963</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8968</b>

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0109</b>	<b>0.1048</b>	<b>0.1609</b>	<b>2.5000e-004</b>		<b>5.1500e-003</b>	<b>5.1500e-003</b>		<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>22.0292</b>	<b>22.0292</b>	<b>7.1200e-003</b>	<b>0.0000</b>	<b>22.2073</b>

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**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
<b>Total</b>	<b>5.9000e-004</b>	<b>4.1000e-004</b>	<b>4.9200e-003</b>	<b>2.0000e-005</b>	<b>1.8100e-003</b>	<b>1.0000e-005</b>	<b>1.8200e-003</b>	<b>4.8000e-004</b>	<b>1.0000e-005</b>	<b>4.9000e-004</b>	<b>0.0000</b>	<b>1.4697</b>	<b>1.4697</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.4706</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0109</b>	<b>0.1048</b>	<b>0.1609</b>	<b>2.5000e-004</b>		<b>5.1500e-003</b>	<b>5.1500e-003</b>		<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>22.0292</b>	<b>22.0292</b>	<b>7.1200e-003</b>	<b>0.0000</b>	<b>22.2073</b>



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**3.6 Paving - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
<b>Total</b>	<b>5.9000e-004</b>	<b>4.1000e-004</b>	<b>4.9200e-003</b>	<b>2.0000e-005</b>	<b>1.8100e-003</b>	<b>1.0000e-005</b>	<b>1.8200e-003</b>	<b>4.8000e-004</b>	<b>1.0000e-005</b>	<b>4.9000e-004</b>	<b>0.0000</b>	<b>1.4697</b>	<b>1.4697</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.4706</b>

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
<b>Total</b>	<b>4.1404</b>	<b>0.0213</b>	<b>0.0317</b>	<b>5.0000e-005</b>		<b>1.0700e-003</b>	<b>1.0700e-003</b>		<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>0.0000</b>	<b>4.4682</b>	<b>4.4682</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>4.4745</b>

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**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
<b>Total</b>	<b>0.0101</b>	<b>6.9900e-003</b>	<b>0.0835</b>	<b>2.8000e-004</b>	<b>0.0307</b>	<b>2.3000e-004</b>	<b>0.0309</b>	<b>8.1500e-003</b>	<b>2.2000e-004</b>	<b>8.3700e-003</b>	<b>0.0000</b>	<b>24.9407</b>	<b>24.9407</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>24.9558</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
<b>Total</b>	<b>4.1404</b>	<b>0.0213</b>	<b>0.0317</b>	<b>5.0000e-005</b>		<b>1.0700e-003</b>	<b>1.0700e-003</b>		<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>0.0000</b>	<b>4.4682</b>	<b>4.4682</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>4.4745</b>

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**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
<b>Total</b>	<b>0.0101</b>	<b>6.9900e-003</b>	<b>0.0835</b>	<b>2.8000e-004</b>	<b>0.0307</b>	<b>2.3000e-004</b>	<b>0.0309</b>	<b>8.1500e-003</b>	<b>2.2000e-004</b>	<b>8.3700e-003</b>	<b>0.0000</b>	<b>24.9407</b>	<b>24.9407</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>24.9558</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003			0.0966	0.0966		0.0966	0.0966	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003			0.0966	0.0966		0.0966	0.0966	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
<b>Total</b>		<b>0.1398</b>	<b>1.2312</b>	<b>0.7770</b>	<b>7.6200e-003</b>		<b>0.0966</b>	<b>0.0966</b>		<b>0.0966</b>	<b>0.0966</b>	<b>0.0000</b>	<b>1,383.4268</b>	<b>1,383.4268</b>	<b>0.0265</b>	<b>0.0254</b>	<b>1,391.6478</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
<b>Total</b>		<b>0.1398</b>	<b>1.2312</b>	<b>0.7770</b>	<b>7.6200e-003</b>		<b>0.0966</b>	<b>0.0966</b>		<b>0.0966</b>	<b>0.0966</b>	<b>0.0000</b>	<b>1,383.4268</b>	<b>1,383.4268</b>	<b>0.0265</b>	<b>0.0254</b>	<b>1,391.6478</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
<b>Total</b>		<b>2,512.6465</b>	<b>0.1037</b>	<b>0.0215</b>	<b>2,521.6356</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
<b>Total</b>		<b>2,512.6465</b>	<b>0.1037</b>	<b>0.0215</b>	<b>2,521.6356</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
<b>Total</b>	<b>5.1437</b>	<b>0.2950</b>	<b>10.3804</b>	<b>1.6600e-003</b>		<b>0.0714</b>	<b>0.0714</b>		<b>0.0714</b>	<b>0.0714</b>	<b>0.0000</b>	<b>220.9670</b>	<b>220.9670</b>	<b>0.0201</b>	<b>3.7400e-003</b>	<b>222.5835</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
<b>Total</b>	<b>5.1437</b>	<b>0.2950</b>	<b>10.3804</b>	<b>1.6600e-003</b>		<b>0.0714</b>	<b>0.0714</b>		<b>0.0714</b>	<b>0.0714</b>	<b>0.0000</b>	<b>220.9670</b>	<b>220.9670</b>	<b>0.0201</b>	<b>3.7400e-003</b>	<b>222.5835</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
<b>Total</b>		<b>585.8052</b>	<b>3.0183</b>	<b>0.0755</b>	<b>683.7567</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
<b>Total</b>		<b>585.8052</b>	<b>3.0183</b>	<b>0.0755</b>	<b>683.7567</b>

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
<b>Total</b>		<b>207.8079</b>	<b>12.2811</b>	<b>0.0000</b>	<b>514.8354</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
<b>Total</b>		<b>207.8079</b>	<b>12.2811</b>	<b>0.0000</b>	<b>514.8354</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**Village South Specific Plan (Proposed)**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
<b>Maximum</b>	<b>237.1630</b>	<b>46.4588</b>	<b>49.5629</b>	<b>0.1517</b>	<b>18.2675</b>	<b>2.0461</b>	<b>20.3135</b>	<b>9.9840</b>	<b>1.8824</b>	<b>11.8664</b>	<b>0.0000</b>	<b>15,251.5674</b>	<b>15,251.5674</b>	<b>1.9503</b>	<b>0.0000</b>	<b>15,278.5288</b>





Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	18,259.11 92
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
<b>Total</b>	<b>41.1168</b>	<b>67.2262</b>	<b>207.5497</b>	<b>0.6278</b>	<b>45.9592</b>	<b>2.4626</b>	<b>48.4217</b>	<b>12.2950</b>	<b>2.4385</b>	<b>14.7336</b>	<b>0.0000</b>	<b>76,811.18 16</b>	<b>76,811.18 16</b>	<b>2.8282</b>	<b>0.4832</b>	<b>77,025.87 86</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	18,259.11 92
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
<b>Total</b>	<b>41.1168</b>	<b>67.2262</b>	<b>207.5497</b>	<b>0.6278</b>	<b>45.9592</b>	<b>2.4626</b>	<b>48.4217</b>	<b>12.2950</b>	<b>2.4385</b>	<b>14.7336</b>	<b>0.0000</b>	<b>76,811.18 16</b>	<b>76,811.18 16</b>	<b>2.8282</b>	<b>0.4832</b>	<b>77,025.87 86</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>		<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
<b>Total</b>	<b>0.1916</b>	<b>4.1394</b>	<b>1.5644</b>	<b>0.0136</b>	<b>0.4346</b>	<b>0.0139</b>	<b>0.4485</b>	<b>0.1176</b>	<b>0.0133</b>	<b>0.1309</b>		<b>1,463.0568</b>	<b>1,463.0568</b>	<b>0.0927</b>		<b>1,465.3750</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>	<b>0.0000</b>	<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
<b>Total</b>	<b>0.1916</b>	<b>4.1394</b>	<b>1.5644</b>	<b>0.0136</b>	<b>0.4346</b>	<b>0.0139</b>	<b>0.4485</b>	<b>0.1176</b>	<b>0.0133</b>	<b>0.1309</b>		<b>1,463.0568</b>	<b>1,463.0568</b>	<b>0.0927</b>		<b>1,465.3750</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
<b>Total</b>	<b>0.0772</b>	<b>0.0530</b>	<b>0.7250</b>	<b>2.0600e-003</b>	<b>0.2012</b>	<b>1.6300e-003</b>	<b>0.2028</b>	<b>0.0534</b>	<b>1.5000e-003</b>	<b>0.0549</b>		<b>204.9786</b>	<b>204.9786</b>	<b>6.0400e-003</b>		<b>205.1296</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
<b>Total</b>	<b>0.0772</b>	<b>0.0530</b>	<b>0.7250</b>	<b>2.0600e-003</b>	<b>0.2012</b>	<b>1.6300e-003</b>	<b>0.2028</b>	<b>0.0534</b>	<b>1.5000e-003</b>	<b>0.0549</b>		<b>204.9786</b>	<b>204.9786</b>	<b>6.0400e-003</b>		<b>205.1296</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
<b>Total</b>	<b>0.0857</b>	<b>0.0589</b>	<b>0.8056</b>	<b>2.2900e-003</b>	<b>0.2236</b>	<b>1.8100e-003</b>	<b>0.2254</b>	<b>0.0593</b>	<b>1.6600e-003</b>	<b>0.0610</b>		<b>227.7540</b>	<b>227.7540</b>	<b>6.7100e-003</b>		<b>227.9217</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
<b>Total</b>	<b>0.0857</b>	<b>0.0589</b>	<b>0.8056</b>	<b>2.2900e-003</b>	<b>0.2236</b>	<b>1.8100e-003</b>	<b>0.2254</b>	<b>0.0593</b>	<b>1.6600e-003</b>	<b>0.0610</b>		<b>227.7540</b>	<b>227.7540</b>	<b>6.7100e-003</b>		<b>227.9217</b>

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>		<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
<b>Total</b>	<b>0.0803</b>	<b>0.0532</b>	<b>0.7432</b>	<b>2.2100e-003</b>	<b>0.2236</b>	<b>1.7500e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.6100e-003</b>	<b>0.0609</b>		<b>219.7425</b>	<b>219.7425</b>	<b>6.0600e-003</b>		<b>219.8941</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>	<b>0.0000</b>	<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.4 Grading - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
<b>Total</b>	<b>0.0803</b>	<b>0.0532</b>	<b>0.7432</b>	<b>2.2100e-003</b>	<b>0.2236</b>	<b>1.7500e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.6100e-003</b>	<b>0.0609</b>		<b>219.7425</b>	<b>219.7425</b>	<b>6.0600e-003</b>		<b>219.8941</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.685 7	8,800.685 7	0.2429		8,806.758 2
<b>Total</b>	<b>3.6242</b>	<b>15.3350</b>	<b>33.1995</b>	<b>0.1247</b>	<b>9.8688</b>	<b>0.0949</b>	<b>9.9637</b>	<b>2.6381</b>	<b>0.0883</b>	<b>2.7263</b>		<b>12,697.23 39</b>	<b>12,697.23 39</b>	<b>0.4665</b>		<b>12,708.89 66</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.333 6</b>	<b>2,554.333 6</b>	<b>0.6120</b>		<b>2,569.632 2</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.685 7	8,800.685 7	0.2429		8,806.758 2
<b>Total</b>	<b>3.6242</b>	<b>15.3350</b>	<b>33.1995</b>	<b>0.1247</b>	<b>9.8688</b>	<b>0.0949</b>	<b>9.9637</b>	<b>2.6381</b>	<b>0.0883</b>	<b>2.7263</b>		<b>12,697.23 39</b>	<b>12,697.23 39</b>	<b>0.4665</b>		<b>12,708.89 66</b>

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.209 9</b>	<b>2,555.209 9</b>	<b>0.6079</b>		<b>2,570.406 1</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.440 8	8,478.440 8	0.2190		8,483.916 0
<b>Total</b>	<b>3.3229</b>	<b>11.9468</b>	<b>30.5127</b>	<b>0.1203</b>	<b>9.8688</b>	<b>0.0797</b>	<b>9.9485</b>	<b>2.6381</b>	<b>0.0738</b>	<b>2.7118</b>		<b>12,252.31 70</b>	<b>12,252.31 70</b>	<b>0.4172</b>		<b>12,262.74 60</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.209 9</b>	<b>2,555.209 9</b>	<b>0.6079</b>		<b>2,570.406 1</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.440 8	8,478.440 8	0.2190		8,483.916 0
<b>Total</b>	<b>3.3229</b>	<b>11.9468</b>	<b>30.5127</b>	<b>0.1203</b>	<b>9.8688</b>	<b>0.0797</b>	<b>9.9485</b>	<b>2.6381</b>	<b>0.0738</b>	<b>2.7118</b>		<b>12,252.31 70</b>	<b>12,252.31 70</b>	<b>0.4172</b>		<b>12,262.74 60</b>

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.584 1</b>	<b>2,207.584 1</b>	<b>0.7140</b>		<b>2,225.433 6</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
<b>Total</b>	<b>0.0566</b>	<b>0.0361</b>	<b>0.5133</b>	<b>1.5900e-003</b>	<b>0.1677</b>	<b>1.2800e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1700e-003</b>	<b>0.0456</b>		<b>158.7723</b>	<b>158.7723</b>	<b>4.1000e-003</b>		<b>158.8748</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
<b>Total</b>	<b>0.0566</b>	<b>0.0361</b>	<b>0.5133</b>	<b>1.5900e-003</b>	<b>0.1677</b>	<b>1.2800e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1700e-003</b>	<b>0.0456</b>		<b>158.7723</b>	<b>158.7723</b>	<b>4.1000e-003</b>		<b>158.8748</b>

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>		<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
<b>Total</b>	<b>0.0535</b>	<b>0.0329</b>	<b>0.4785</b>	<b>1.5400e-003</b>	<b>0.1677</b>	<b>1.2600e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0456</b>		<b>153.8517</b>	<b>153.8517</b>	<b>3.7600e-003</b>		<b>153.9458</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>	<b>0.0000</b>	<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.6 Paving - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
<b>Total</b>	<b>0.0535</b>	<b>0.0329</b>	<b>0.4785</b>	<b>1.5400e-003</b>	<b>0.1677</b>	<b>1.2600e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0456</b>		<b>153.8517</b>	<b>153.8517</b>	<b>3.7600e-003</b>		<b>153.9458</b>

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.085 2	1,641.085 2	0.0401		1,642.088 6
<b>Total</b>	<b>0.5707</b>	<b>0.3513</b>	<b>5.1044</b>	<b>0.0165</b>	<b>1.7884</b>	<b>0.0134</b>	<b>1.8018</b>	<b>0.4743</b>	<b>0.0123</b>	<b>0.4866</b>		<b>1,641.085 2</b>	<b>1,641.085 2</b>	<b>0.0401</b>		<b>1,642.088 6</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.085 2	1,641.085 2	0.0401		1,642.088 6
<b>Total</b>	<b>0.5707</b>	<b>0.3513</b>	<b>5.1044</b>	<b>0.0165</b>	<b>1.7884</b>	<b>0.0134</b>	<b>1.8018</b>	<b>0.4743</b>	<b>0.0123</b>	<b>0.4866</b>		<b>1,641.085 2</b>	<b>1,641.085 2</b>	<b>0.0401</b>		<b>1,642.088 6</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**Village South Specific Plan (Proposed)**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27



## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
<b>Maximum</b>	<b>237.2328</b>	<b>46.4651</b>	<b>47.3319</b>	<b>0.1455</b>	<b>18.2675</b>	<b>2.0461</b>	<b>20.3135</b>	<b>9.9840</b>	<b>1.8824</b>	<b>11.8664</b>	<b>0.0000</b>	<b>14,630.3099</b>	<b>14,630.3099</b>	<b>1.9499</b>	<b>0.0000</b>	<b>14,657.2663</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
<b>Total</b>	<b>40.7912</b>	<b>67.7872</b>	<b>202.7424</b>	<b>0.6043</b>	<b>45.9592</b>	<b>2.4640</b>	<b>48.4231</b>	<b>12.2950</b>	<b>2.4399</b>	<b>14.7349</b>	<b>0.0000</b>	<b>74,422.3787</b>	<b>74,422.3787</b>	<b>2.8429</b>	<b>0.4832</b>	<b>74,637.4417</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
<b>Total</b>	<b>40.7912</b>	<b>67.7872</b>	<b>202.7424</b>	<b>0.6043</b>	<b>45.9592</b>	<b>2.4640</b>	<b>48.4231</b>	<b>12.2950</b>	<b>2.4399</b>	<b>14.7349</b>	<b>0.0000</b>	<b>74,422.3787</b>	<b>74,422.3787</b>	<b>2.8429</b>	<b>0.4832</b>	<b>74,637.4417</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>		<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
<b>Total</b>	<b>0.2019</b>	<b>4.1943</b>	<b>1.5706</b>	<b>0.0133</b>	<b>0.4346</b>	<b>0.0141</b>	<b>0.4487</b>	<b>0.1176</b>	<b>0.0135</b>	<b>0.1311</b>		<b>1,430.6932</b>	<b>1,430.6932</b>	<b>0.0955</b>		<b>1,433.0812</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>	<b>0.0000</b>	<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
<b>Total</b>	<b>0.2019</b>	<b>4.1943</b>	<b>1.5706</b>	<b>0.0133</b>	<b>0.4346</b>	<b>0.0141</b>	<b>0.4487</b>	<b>0.1176</b>	<b>0.0135</b>	<b>0.1311</b>		<b>1,430.6932</b>	<b>1,430.6932</b>	<b>0.0955</b>		<b>1,433.0812</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
<b>Total</b>	<b>0.0858</b>	<b>0.0587</b>	<b>0.6629</b>	<b>1.9400e-003</b>	<b>0.2012</b>	<b>1.6300e-003</b>	<b>0.2028</b>	<b>0.0534</b>	<b>1.5000e-003</b>	<b>0.0549</b>		<b>193.0052</b>	<b>193.0052</b>	<b>5.6800e-003</b>		<b>193.1472</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
<b>Total</b>	<b>0.0858</b>	<b>0.0587</b>	<b>0.6629</b>	<b>1.9400e-003</b>	<b>0.2012</b>	<b>1.6300e-003</b>	<b>0.2028</b>	<b>0.0534</b>	<b>1.5000e-003</b>	<b>0.0549</b>		<b>193.0052</b>	<b>193.0052</b>	<b>5.6800e-003</b>		<b>193.1472</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
<b>Total</b>	<b>0.0954</b>	<b>0.0652</b>	<b>0.7365</b>	<b>2.1500e-003</b>	<b>0.2236</b>	<b>1.8100e-003</b>	<b>0.2254</b>	<b>0.0593</b>	<b>1.6600e-003</b>	<b>0.0610</b>		<b>214.4502</b>	<b>214.4502</b>	<b>6.3100e-003</b>		<b>214.6080</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
<b>Total</b>	<b>0.0954</b>	<b>0.0652</b>	<b>0.7365</b>	<b>2.1500e-003</b>	<b>0.2236</b>	<b>1.8100e-003</b>	<b>0.2254</b>	<b>0.0593</b>	<b>1.6600e-003</b>	<b>0.0610</b>		<b>214.4502</b>	<b>214.4502</b>	<b>6.3100e-003</b>		<b>214.6080</b>

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>		<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
<b>Total</b>	<b>0.0896</b>	<b>0.0589</b>	<b>0.6784</b>	<b>2.0800e-003</b>	<b>0.2236</b>	<b>1.7500e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.6100e-003</b>	<b>0.0609</b>		<b>206.9139</b>	<b>206.9139</b>	<b>5.7000e-003</b>		<b>207.0563</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>	<b>0.0000</b>	<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.4 Grading - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
<b>Total</b>	<b>0.0896</b>	<b>0.0589</b>	<b>0.6784</b>	<b>2.0800e-003</b>	<b>0.2236</b>	<b>1.7500e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.6100e-003</b>	<b>0.0609</b>		<b>206.9139</b>	<b>206.9139</b>	<b>5.7000e-003</b>		<b>207.0563</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
<b>Total</b>	<b>4.0156</b>	<b>15.5266</b>	<b>30.9685</b>	<b>0.1186</b>	<b>9.8688</b>	<b>0.0957</b>	<b>9.9645</b>	<b>2.6381</b>	<b>0.0891</b>	<b>2.7271</b>		<b>12,075.9763</b>	<b>12,075.9763</b>	<b>0.4663</b>		<b>12,087.6341</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
<b>Total</b>	<b>4.0156</b>	<b>15.5266</b>	<b>30.9685</b>	<b>0.1186</b>	<b>9.8688</b>	<b>0.0957</b>	<b>9.9645</b>	<b>2.6381</b>	<b>0.0891</b>	<b>2.7271</b>		<b>12,075.9763</b>	<b>12,075.9763</b>	<b>0.4663</b>		<b>12,087.6341</b>

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
<b>Total</b>	<b>3.6978</b>	<b>12.1065</b>	<b>28.3496</b>	<b>0.1144</b>	<b>9.8688</b>	<b>0.0803</b>	<b>9.9491</b>	<b>2.6381</b>	<b>0.0743</b>	<b>2.7124</b>		<b>11,655.1325</b>	<b>11,655.1325</b>	<b>0.4151</b>		<b>11,665.5099</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
<b>Total</b>	<b>3.6978</b>	<b>12.1065</b>	<b>28.3496</b>	<b>0.1144</b>	<b>9.8688</b>	<b>0.0803</b>	<b>9.9491</b>	<b>2.6381</b>	<b>0.0743</b>	<b>2.7124</b>		<b>11,655.1325</b>	<b>11,655.1325</b>	<b>0.4151</b>		<b>11,665.5099</b>

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
<b>Total</b>	<b>0.0633</b>	<b>0.0400</b>	<b>0.4677</b>	<b>1.5000e-003</b>	<b>0.1677</b>	<b>1.2800e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1700e-003</b>	<b>0.0456</b>		<b>149.5081</b>	<b>149.5081</b>	<b>3.8500e-003</b>		<b>149.6043</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
<b>Total</b>	<b>0.0633</b>	<b>0.0400</b>	<b>0.4677</b>	<b>1.5000e-003</b>	<b>0.1677</b>	<b>1.2800e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1700e-003</b>	<b>0.0456</b>		<b>149.5081</b>	<b>149.5081</b>	<b>3.8500e-003</b>		<b>149.6043</b>

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>		<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
<b>Total</b>	<b>0.0601</b>	<b>0.0364</b>	<b>0.4354</b>	<b>1.4500e-003</b>	<b>0.1677</b>	<b>1.2600e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0456</b>		<b>144.8706</b>	<b>144.8706</b>	<b>3.5300e-003</b>		<b>144.9587</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>	<b>0.0000</b>	<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.6 Paving - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
<b>Total</b>	<b>0.0601</b>	<b>0.0364</b>	<b>0.4354</b>	<b>1.4500e-003</b>	<b>0.1677</b>	<b>1.2600e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0456</b>		<b>144.8706</b>	<b>144.8706</b>	<b>3.5300e-003</b>		<b>144.9587</b>

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
<b>Total</b>	<b>0.6406</b>	<b>0.3886</b>	<b>4.6439</b>	<b>0.0155</b>	<b>1.7884</b>	<b>0.0134</b>	<b>1.8018</b>	<b>0.4743</b>	<b>0.0123</b>	<b>0.4866</b>		<b>1,545.2860</b>	<b>1,545.2860</b>	<b>0.0376</b>		<b>1,546.2262</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.286 0	1,545.286 0	0.0376		1,546.226 2
<b>Total</b>	<b>0.6406</b>	<b>0.3886</b>	<b>4.6439</b>	<b>0.0155</b>	<b>1.7884</b>	<b>0.0134</b>	<b>1.8018</b>	<b>0.4743</b>	<b>0.0123</b>	<b>0.4866</b>		<b>1,545.286 0</b>	<b>1,545.286 0</b>	<b>0.0376</b>		<b>1,546.226 2</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**Village South Specific Plan (Proposed)**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

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tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
<b>Maximum</b>	<b>4.1592</b>	<b>4.0240</b>	<b>5.1546</b>	<b>0.0155</b>	<b>0.9509</b>	<b>0.1175</b>	<b>1.0683</b>	<b>0.2518</b>	<b>0.1103</b>	<b>0.3621</b>	<b>0.0000</b>	<b>1,418.6554</b>	<b>1,418.6554</b>	<b>0.1215</b>	<b>0.0000</b>	<b>1,421.6925</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
<b>Maximum</b>	<b>4.1592</b>	<b>4.0240</b>	<b>5.1546</b>	<b>0.0155</b>	<b>0.9509</b>	<b>0.1175</b>	<b>1.0683</b>	<b>0.2518</b>	<b>0.1103</b>	<b>0.3621</b>	<b>0.0000</b>	<b>1,418.6550</b>	<b>1,418.6550</b>	<b>0.1215</b>	<b>0.0000</b>	<b>1,421.6921</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.4091	1.4091
2	12-1-2021	2-28-2022	1.3329	1.3329
3	3-1-2022	5-31-2022	1.1499	1.1499
4	6-1-2022	8-31-2022	1.1457	1.1457
5	9-1-2022	11-30-2022	1.1415	1.1415
6	12-1-2022	2-28-2023	1.0278	1.0278
7	3-1-2023	5-31-2023	0.9868	0.9868
8	6-1-2023	8-31-2023	0.9831	0.9831

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9	9-1-2023	11-30-2023	0.9798	0.9798
10	12-1-2023	2-29-2024	2.8757	2.8757
11	3-1-2024	5-31-2024	1.6188	1.6188
		Highest	2.8757	2.8757

**2.2 Overall Operational**  
**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
<b>Total</b>	<b>6.8692</b>	<b>9.5223</b>	<b>30.3407</b>	<b>0.0914</b>	<b>7.7979</b>	<b>0.2260</b>	<b>8.0240</b>	<b>2.0895</b>	<b>0.2219</b>	<b>2.3114</b>	<b>236.9712</b>	<b>12,294.1807</b>	<b>12,531.1519</b>	<b>15.7904</b>	<b>0.1260</b>	<b>12,963.4751</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
<b>Total</b>	<b>6.8692</b>	<b>9.5223</b>	<b>30.3407</b>	<b>0.0914</b>	<b>7.7979</b>	<b>0.2260</b>	<b>8.0240</b>	<b>2.0895</b>	<b>0.2219</b>	<b>2.3114</b>	<b>236.9712</b>	<b>12,294.1807</b>	<b>12,531.1519</b>	<b>15.7904</b>	<b>0.1260</b>	<b>12,963.4751</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**



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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 112.5**

**Acres of Paving: 0**

**Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
<b>Total</b>	<b>0.0475</b>	<b>0.4716</b>	<b>0.3235</b>	<b>5.8000e-004</b>	<b>0.0496</b>	<b>0.0233</b>	<b>0.0729</b>	<b>7.5100e-003</b>	<b>0.0216</b>	<b>0.0291</b>	<b>0.0000</b>	<b>51.0012</b>	<b>51.0012</b>	<b>0.0144</b>	<b>0.0000</b>	<b>51.3601</b>

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**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
<b>Total</b>	<b>2.6500e-003</b>	<b>0.0639</b>	<b>0.0209</b>	<b>2.0000e-004</b>	<b>5.6200e-003</b>	<b>2.0000e-004</b>	<b>5.8200e-003</b>	<b>1.5300e-003</b>	<b>1.9000e-004</b>	<b>1.7200e-003</b>	<b>0.0000</b>	<b>18.9847</b>	<b>18.9847</b>	<b>1.2600e-003</b>	<b>0.0000</b>	<b>19.0161</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
<b>Total</b>	<b>0.0475</b>	<b>0.4716</b>	<b>0.3235</b>	<b>5.8000e-004</b>	<b>0.0496</b>	<b>0.0233</b>	<b>0.0729</b>	<b>7.5100e-003</b>	<b>0.0216</b>	<b>0.0291</b>	<b>0.0000</b>	<b>51.0011</b>	<b>51.0011</b>	<b>0.0144</b>	<b>0.0000</b>	<b>51.3600</b>

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**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
<b>Total</b>	<b>2.6500e-003</b>	<b>0.0639</b>	<b>0.0209</b>	<b>2.0000e-004</b>	<b>5.6200e-003</b>	<b>2.0000e-004</b>	<b>5.8200e-003</b>	<b>1.5300e-003</b>	<b>1.9000e-004</b>	<b>1.7200e-003</b>	<b>0.0000</b>	<b>18.9847</b>	<b>18.9847</b>	<b>1.2600e-003</b>	<b>0.0000</b>	<b>19.0161</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
<b>Total</b>	<b>0.0389</b>	<b>0.4050</b>	<b>0.2115</b>	<b>3.8000e-004</b>	<b>0.1807</b>	<b>0.0204</b>	<b>0.2011</b>	<b>0.0993</b>	<b>0.0188</b>	<b>0.1181</b>	<b>0.0000</b>	<b>33.4357</b>	<b>33.4357</b>	<b>0.0108</b>	<b>0.0000</b>	<b>33.7061</b>

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**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
<b>Total</b>	<b>5.8000e-004</b>	<b>4.3000e-004</b>	<b>4.8700e-003</b>	<b>1.0000e-005</b>	<b>1.3400e-003</b>	<b>1.0000e-005</b>	<b>1.3500e-003</b>	<b>3.6000e-004</b>	<b>1.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.2225</b>	<b>1.2225</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.2234</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
<b>Total</b>	<b>0.0389</b>	<b>0.4050</b>	<b>0.2115</b>	<b>3.8000e-004</b>	<b>0.1807</b>	<b>0.0204</b>	<b>0.2011</b>	<b>0.0993</b>	<b>0.0188</b>	<b>0.1181</b>	<b>0.0000</b>	<b>33.4357</b>	<b>33.4357</b>	<b>0.0108</b>	<b>0.0000</b>	<b>33.7060</b>

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**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
<b>Total</b>	<b>5.8000e-004</b>	<b>4.3000e-004</b>	<b>4.8700e-003</b>	<b>1.0000e-005</b>	<b>1.3400e-003</b>	<b>1.0000e-005</b>	<b>1.3500e-003</b>	<b>3.6000e-004</b>	<b>1.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.2225</b>	<b>1.2225</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.2234</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
<b>Total</b>	<b>0.0796</b>	<b>0.8816</b>	<b>0.5867</b>	<b>1.1800e-003</b>	<b>0.1741</b>	<b>0.0377</b>	<b>0.2118</b>	<b>0.0693</b>	<b>0.0347</b>	<b>0.1040</b>	<b>0.0000</b>	<b>103.5405</b>	<b>103.5405</b>	<b>0.0335</b>	<b>0.0000</b>	<b>104.3776</b>

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**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
<b>Total</b>	<b>1.2200e-003</b>	<b>9.0000e-004</b>	<b>0.0103</b>	<b>3.0000e-005</b>	<b>2.8300e-003</b>	<b>2.0000e-005</b>	<b>2.8600e-003</b>	<b>7.5000e-004</b>	<b>2.0000e-005</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>2.5808</b>	<b>2.5808</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.5828</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
<b>Total</b>	<b>0.0796</b>	<b>0.8816</b>	<b>0.5867</b>	<b>1.1800e-003</b>	<b>0.1741</b>	<b>0.0377</b>	<b>0.2118</b>	<b>0.0693</b>	<b>0.0347</b>	<b>0.1040</b>	<b>0.0000</b>	<b>103.5403</b>	<b>103.5403</b>	<b>0.0335</b>	<b>0.0000</b>	<b>104.3775</b>



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**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
<b>Total</b>	<b>1.2200e-003</b>	<b>9.0000e-004</b>	<b>0.0103</b>	<b>3.0000e-005</b>	<b>2.8300e-003</b>	<b>2.0000e-005</b>	<b>2.8600e-003</b>	<b>7.5000e-004</b>	<b>2.0000e-005</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>2.5808</b>	<b>2.5808</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.5828</b>

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
<b>Total</b>	<b>0.0127</b>	<b>0.1360</b>	<b>0.1017</b>	<b>2.2000e-004</b>	<b>0.0807</b>	<b>5.7200e-003</b>	<b>0.0865</b>	<b>0.0180</b>	<b>5.2600e-003</b>	<b>0.0233</b>	<b>0.0000</b>	<b>19.0871</b>	<b>19.0871</b>	<b>6.1700e-003</b>	<b>0.0000</b>	<b>19.2414</b>

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**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
<b>Total</b>	<b>2.1000e-004</b>	<b>1.5000e-004</b>	<b>1.7400e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4587</b>	<b>0.4587</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4590</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
<b>Total</b>	<b>0.0127</b>	<b>0.1360</b>	<b>0.1017</b>	<b>2.2000e-004</b>	<b>0.0807</b>	<b>5.7200e-003</b>	<b>0.0865</b>	<b>0.0180</b>	<b>5.2600e-003</b>	<b>0.0233</b>	<b>0.0000</b>	<b>19.0871</b>	<b>19.0871</b>	<b>6.1700e-003</b>	<b>0.0000</b>	<b>19.2414</b>

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**3.4 Grading - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
<b>Total</b>	<b>2.1000e-004</b>	<b>1.5000e-004</b>	<b>1.7400e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4587</b>	<b>0.4587</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4590</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
<b>Total</b>	<b>0.2158</b>	<b>1.9754</b>	<b>2.0700</b>	<b>3.4100e-003</b>		<b>0.1023</b>	<b>0.1023</b>		<b>0.0963</b>	<b>0.0963</b>	<b>0.0000</b>	<b>293.1324</b>	<b>293.1324</b>	<b>0.0702</b>	<b>0.0000</b>	<b>294.8881</b>

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**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
<b>Total</b>	<b>0.3578</b>	<b>1.9125</b>	<b>2.9812</b>	<b>0.0119</b>	<b>0.8696</b>	<b>9.4100e-003</b>	<b>0.8790</b>	<b>0.2336</b>	<b>8.7800e-003</b>	<b>0.2424</b>	<b>0.0000</b>	<b>1,105.9771</b>	<b>1,105.9771</b>	<b>0.0451</b>	<b>0.0000</b>	<b>1,107.1039</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
<b>Total</b>	<b>0.2158</b>	<b>1.9754</b>	<b>2.0700</b>	<b>3.4100e-003</b>		<b>0.1023</b>	<b>0.1023</b>		<b>0.0963</b>	<b>0.0963</b>	<b>0.0000</b>	<b>293.1321</b>	<b>293.1321</b>	<b>0.0702</b>	<b>0.0000</b>	<b>294.8877</b>

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**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
<b>Total</b>	<b>0.3578</b>	<b>1.9125</b>	<b>2.9812</b>	<b>0.0119</b>	<b>0.8696</b>	<b>9.4100e-003</b>	<b>0.8790</b>	<b>0.2336</b>	<b>8.7800e-003</b>	<b>0.2424</b>	<b>0.0000</b>	<b>1,105.9771</b>	<b>1,105.9771</b>	<b>0.0451</b>	<b>0.0000</b>	<b>1,107.1039</b>

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
<b>Total</b>	<b>0.1942</b>	<b>1.7765</b>	<b>2.0061</b>	<b>3.3300e-003</b>		<b>0.0864</b>	<b>0.0864</b>		<b>0.0813</b>	<b>0.0813</b>	<b>0.0000</b>	<b>286.2789</b>	<b>286.2789</b>	<b>0.0681</b>	<b>0.0000</b>	<b>287.9814</b>

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**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
<b>Total</b>	<b>0.3177</b>	<b>1.4420</b>	<b>2.6646</b>	<b>0.0112</b>	<b>0.8490</b>	<b>7.3700e-003</b>	<b>0.8564</b>	<b>0.2281</b>	<b>6.8500e-003</b>	<b>0.2349</b>	<b>0.0000</b>	<b>1,042.5294</b>	<b>1,042.5294</b>	<b>0.0392</b>	<b>0.0000</b>	<b>1,043.5090</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
<b>Total</b>	<b>0.1942</b>	<b>1.7765</b>	<b>2.0061</b>	<b>3.3300e-003</b>		<b>0.0864</b>	<b>0.0864</b>		<b>0.0813</b>	<b>0.0813</b>	<b>0.0000</b>	<b>286.2785</b>	<b>286.2785</b>	<b>0.0681</b>	<b>0.0000</b>	<b>287.9811</b>

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**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
<b>Total</b>	<b>0.3177</b>	<b>1.4420</b>	<b>2.6646</b>	<b>0.0112</b>	<b>0.8490</b>	<b>7.3700e-003</b>	<b>0.8564</b>	<b>0.2281</b>	<b>6.8500e-003</b>	<b>0.2349</b>	<b>0.0000</b>	<b>1,042.5294</b>	<b>1,042.5294</b>	<b>0.0392</b>	<b>0.0000</b>	<b>1,043.5090</b>

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>6.7100e-003</b>	<b>0.0663</b>	<b>0.0948</b>	<b>1.5000e-004</b>		<b>3.3200e-003</b>	<b>3.3200e-003</b>		<b>3.0500e-003</b>	<b>3.0500e-003</b>	<b>0.0000</b>	<b>13.0175</b>	<b>13.0175</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>13.1227</b>

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**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
<b>Total</b>	<b>2.8000e-004</b>	<b>1.9000e-004</b>	<b>2.2300e-003</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.9000e-004</b>	<b>1.0000e-005</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6156</b>	<b>0.6156</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6160</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>6.7100e-003</b>	<b>0.0663</b>	<b>0.0948</b>	<b>1.5000e-004</b>		<b>3.3200e-003</b>	<b>3.3200e-003</b>		<b>3.0500e-003</b>	<b>3.0500e-003</b>	<b>0.0000</b>	<b>13.0175</b>	<b>13.0175</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>13.1227</b>



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**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
<b>Total</b>	<b>2.8000e-004</b>	<b>1.9000e-004</b>	<b>2.2300e-003</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.9000e-004</b>	<b>1.0000e-005</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6156</b>	<b>0.6156</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6160</b>

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0109</b>	<b>0.1048</b>	<b>0.1609</b>	<b>2.5000e-004</b>		<b>5.1500e-003</b>	<b>5.1500e-003</b>		<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>22.0292</b>	<b>22.0292</b>	<b>7.1200e-003</b>	<b>0.0000</b>	<b>22.2073</b>

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**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
<b>Total</b>	<b>4.4000e-004</b>	<b>2.9000e-004</b>	<b>3.5100e-003</b>	<b>1.0000e-005</b>	<b>1.2300e-003</b>	<b>1.0000e-005</b>	<b>1.2400e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.0094</b>	<b>1.0094</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.0100</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0109</b>	<b>0.1048</b>	<b>0.1609</b>	<b>2.5000e-004</b>		<b>5.1500e-003</b>	<b>5.1500e-003</b>		<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>22.0292</b>	<b>22.0292</b>	<b>7.1200e-003</b>	<b>0.0000</b>	<b>22.2073</b>

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**3.6 Paving - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
<b>Total</b>	<b>4.4000e-004</b>	<b>2.9000e-004</b>	<b>3.5100e-003</b>	<b>1.0000e-005</b>	<b>1.2300e-003</b>	<b>1.0000e-005</b>	<b>1.2400e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.0094</b>	<b>1.0094</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.0100</b>

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
<b>Total</b>	<b>4.1404</b>	<b>0.0213</b>	<b>0.0317</b>	<b>5.0000e-005</b>		<b>1.0700e-003</b>	<b>1.0700e-003</b>		<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>0.0000</b>	<b>4.4682</b>	<b>4.4682</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>4.4745</b>

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**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
<b>Total</b>	<b>7.4800e-003</b>	<b>4.9300e-003</b>	<b>0.0596</b>	<b>1.9000e-004</b>	<b>0.0209</b>	<b>1.6000e-004</b>	<b>0.0211</b>	<b>5.5500e-003</b>	<b>1.5000e-004</b>	<b>5.7000e-003</b>	<b>0.0000</b>	<b>17.1287</b>	<b>17.1287</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>17.1394</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
<b>Total</b>	<b>4.1404</b>	<b>0.0213</b>	<b>0.0317</b>	<b>5.0000e-005</b>		<b>1.0700e-003</b>	<b>1.0700e-003</b>		<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>0.0000</b>	<b>4.4682</b>	<b>4.4682</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>4.4745</b>

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**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
<b>Total</b>	<b>7.4800e-003</b>	<b>4.9300e-003</b>	<b>0.0596</b>	<b>1.9000e-004</b>	<b>0.0209</b>	<b>1.6000e-004</b>	<b>0.0211</b>	<b>5.5500e-003</b>	<b>1.5000e-004</b>	<b>5.7000e-003</b>	<b>0.0000</b>	<b>17.1287</b>	<b>17.1287</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>17.1394</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478



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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
<b>Total</b>		<b>0.1398</b>	<b>1.2312</b>	<b>0.7770</b>	<b>7.6200e-003</b>		<b>0.0966</b>	<b>0.0966</b>		<b>0.0966</b>	<b>0.0966</b>	<b>0.0000</b>	<b>1,383.4268</b>	<b>1,383.4268</b>	<b>0.0265</b>	<b>0.0254</b>	<b>1,391.6478</b>

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**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
<b>Total</b>		<b>0.1398</b>	<b>1.2312</b>	<b>0.7770</b>	<b>7.6200e-003</b>		<b>0.0966</b>	<b>0.0966</b>		<b>0.0966</b>	<b>0.0966</b>	<b>0.0000</b>	<b>1,383.4268</b>	<b>1,383.4268</b>	<b>0.0265</b>	<b>0.0254</b>	<b>1,391.6478</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
<b>Total</b>		<b>2,512.6465</b>	<b>0.1037</b>	<b>0.0215</b>	<b>2,521.6356</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
<b>Total</b>		<b>2,512.6465</b>	<b>0.1037</b>	<b>0.0215</b>	<b>2,521.6356</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
<b>Total</b>	<b>5.1437</b>	<b>0.2950</b>	<b>10.3804</b>	<b>1.6600e-003</b>		<b>0.0714</b>	<b>0.0714</b>		<b>0.0714</b>	<b>0.0714</b>	<b>0.0000</b>	<b>220.9670</b>	<b>220.9670</b>	<b>0.0201</b>	<b>3.7400e-003</b>	<b>222.5835</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
<b>Total</b>	<b>5.1437</b>	<b>0.2950</b>	<b>10.3804</b>	<b>1.6600e-003</b>		<b>0.0714</b>	<b>0.0714</b>		<b>0.0714</b>	<b>0.0714</b>	<b>0.0000</b>	<b>220.9670</b>	<b>220.9670</b>	<b>0.0201</b>	<b>3.7400e-003</b>	<b>222.5835</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
<b>Total</b>		<b>585.8052</b>	<b>3.0183</b>	<b>0.0755</b>	<b>683.7567</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
<b>Total</b>		<b>585.8052</b>	<b>3.0183</b>	<b>0.0755</b>	<b>683.7567</b>

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
<b>Total</b>		<b>207.8079</b>	<b>12.2811</b>	<b>0.0000</b>	<b>514.8354</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
<b>Total</b>		<b>207.8079</b>	<b>12.2811</b>	<b>0.0000</b>	<b>514.8354</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**Village South Specific Plan (Proposed)**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
<b>Maximum</b>	<b>237.0219</b>	<b>46.4415</b>	<b>40.8776</b>	<b>0.1240</b>	<b>18.2032</b>	<b>2.0456</b>	<b>20.2488</b>	<b>9.9670</b>	<b>1.8820</b>	<b>11.8490</b>	<b>0.0000</b>	<b>12,493.4403</b>	<b>12,493.4403</b>	<b>1.9485</b>	<b>0.0000</b>	<b>12,518.5707</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	18,259.11 92
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
<b>Total</b>	<b>41.1168</b>	<b>67.2262</b>	<b>207.5497</b>	<b>0.6278</b>	<b>45.9592</b>	<b>2.4626</b>	<b>48.4217</b>	<b>12.2950</b>	<b>2.4385</b>	<b>14.7336</b>	<b>0.0000</b>	<b>76,811.18 16</b>	<b>76,811.18 16</b>	<b>2.8282</b>	<b>0.4832</b>	<b>77,025.87 86</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	18,259.11 92
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
<b>Total</b>	<b>41.1168</b>	<b>67.2262</b>	<b>207.5497</b>	<b>0.6278</b>	<b>45.9592</b>	<b>2.4626</b>	<b>48.4217</b>	<b>12.2950</b>	<b>2.4385</b>	<b>14.7336</b>	<b>0.0000</b>	<b>76,811.18 16</b>	<b>76,811.18 16</b>	<b>2.8282</b>	<b>0.4832</b>	<b>77,025.87 86</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>		<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
<b>Total</b>	<b>0.1760</b>	<b>4.1265</b>	<b>1.3884</b>	<b>0.0131</b>	<b>0.3810</b>	<b>0.0135</b>	<b>0.3946</b>	<b>0.1034</b>	<b>0.0129</b>	<b>0.1163</b>		<b>1,409.5212</b>	<b>1,409.5212</b>	<b>0.0912</b>		<b>1,411.8015</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>	<b>0.0000</b>	<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
<b>Total</b>	<b>0.1760</b>	<b>4.1265</b>	<b>1.3884</b>	<b>0.0131</b>	<b>0.3810</b>	<b>0.0135</b>	<b>0.3946</b>	<b>0.1034</b>	<b>0.0129</b>	<b>0.1163</b>		<b>1,409.5212</b>	<b>1,409.5212</b>	<b>0.0912</b>		<b>1,411.8015</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
<b>Total</b>	<b>0.0584</b>	<b>0.0375</b>	<b>0.5139</b>	<b>1.4100e-003</b>	<b>0.1369</b>	<b>1.1400e-003</b>	<b>0.1381</b>	<b>0.0363</b>	<b>1.0500e-003</b>	<b>0.0374</b>		<b>140.7359</b>	<b>140.7359</b>	<b>4.2200e-003</b>		<b>140.8414</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
<b>Total</b>	<b>0.0584</b>	<b>0.0375</b>	<b>0.5139</b>	<b>1.4100e-003</b>	<b>0.1369</b>	<b>1.1400e-003</b>	<b>0.1381</b>	<b>0.0363</b>	<b>1.0500e-003</b>	<b>0.0374</b>		<b>140.7359</b>	<b>140.7359</b>	<b>4.2200e-003</b>		<b>140.8414</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
<b>Total</b>	<b>0.0649</b>	<b>0.0417</b>	<b>0.5710</b>	<b>1.5700e-003</b>	<b>0.1521</b>	<b>1.2700e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1700e-003</b>	<b>0.0415</b>		<b>156.3732</b>	<b>156.3732</b>	<b>4.6900e-003</b>		<b>156.4904</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
<b>Total</b>	<b>0.0649</b>	<b>0.0417</b>	<b>0.5710</b>	<b>1.5700e-003</b>	<b>0.1521</b>	<b>1.2700e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1700e-003</b>	<b>0.0415</b>		<b>156.3732</b>	<b>156.3732</b>	<b>4.6900e-003</b>		<b>156.4904</b>

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>		<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
<b>Total</b>	<b>0.0607</b>	<b>0.0376</b>	<b>0.5263</b>	<b>1.5100e-003</b>	<b>0.1521</b>	<b>1.2300e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1300e-003</b>	<b>0.0415</b>		<b>150.8754</b>	<b>150.8754</b>	<b>4.2400e-003</b>		<b>150.9813</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>	<b>0.0000</b>	<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.4 Grading - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
<b>Total</b>	<b>0.0607</b>	<b>0.0376</b>	<b>0.5263</b>	<b>1.5100e-003</b>	<b>0.1521</b>	<b>1.2300e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1300e-003</b>	<b>0.0415</b>		<b>150.8754</b>	<b>150.8754</b>	<b>4.2400e-003</b>		<b>150.9813</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.558 5	6,042.558 5	0.1697		6,046.800 0
<b>Total</b>	<b>2.8378</b>	<b>14.7106</b>	<b>24.5142</b>	<b>0.0971</b>	<b>7.0087</b>	<b>0.0741</b>	<b>7.0828</b>	<b>1.8799</b>	<b>0.0691</b>	<b>1.9490</b>		<b>9,939.106 7</b>	<b>9,939.106 7</b>	<b>0.3933</b>		<b>9,948.938 4</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.333 6</b>	<b>2,554.333 6</b>	<b>0.6120</b>		<b>2,569.632 2</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.558 5	6,042.558 5	0.1697		6,046.800 0
<b>Total</b>	<b>2.8378</b>	<b>14.7106</b>	<b>24.5142</b>	<b>0.0971</b>	<b>7.0087</b>	<b>0.0741</b>	<b>7.0828</b>	<b>1.8799</b>	<b>0.0691</b>	<b>1.9490</b>		<b>9,939.106 7</b>	<b>9,939.106 7</b>	<b>0.3933</b>		<b>9,948.938 4</b>

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.209 9</b>	<b>2,555.209 9</b>	<b>0.6079</b>		<b>2,570.406 1</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.402 8	5,821.402 8	0.1529		5,825.225 4
<b>Total</b>	<b>2.5807</b>	<b>11.3809</b>	<b>22.5017</b>	<b>0.0936</b>	<b>7.0088</b>	<b>0.0595</b>	<b>7.0682</b>	<b>1.8799</b>	<b>0.0552</b>	<b>1.9350</b>		<b>9,595.279 0</b>	<b>9,595.279 0</b>	<b>0.3511</b>		<b>9,604.055 4</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.209 9</b>	<b>2,555.209 9</b>	<b>0.6079</b>		<b>2,570.406 1</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.402 8	5,821.402 8	0.1529		5,825.225 4
<b>Total</b>	<b>2.5807</b>	<b>11.3809</b>	<b>22.5017</b>	<b>0.0936</b>	<b>7.0088</b>	<b>0.0595</b>	<b>7.0682</b>	<b>1.8799</b>	<b>0.0552</b>	<b>1.9350</b>		<b>9,595.279 0</b>	<b>9,595.279 0</b>	<b>0.3511</b>		<b>9,604.055 4</b>

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.584 1</b>	<b>2,207.584 1</b>	<b>0.7140</b>		<b>2,225.433 6</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
<b>Total</b>	<b>0.0427</b>	<b>0.0255</b>	<b>0.3633</b>	<b>1.0900e-003</b>	<b>0.1141</b>	<b>9.0000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.3000e-004</b>	<b>0.0311</b>		<b>109.0150</b>	<b>109.0150</b>	<b>2.8600e-003</b>		<b>109.0866</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
<b>Total</b>	<b>0.0427</b>	<b>0.0255</b>	<b>0.3633</b>	<b>1.0900e-003</b>	<b>0.1141</b>	<b>9.0000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.3000e-004</b>	<b>0.0311</b>		<b>109.0150</b>	<b>109.0150</b>	<b>2.8600e-003</b>		<b>109.0866</b>

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>		<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
<b>Total</b>	<b>0.0403</b>	<b>0.0233</b>	<b>0.3384</b>	<b>1.0600e-003</b>	<b>0.1141</b>	<b>8.8000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.1000e-004</b>	<b>0.0311</b>		<b>105.6336</b>	<b>105.6336</b>	<b>2.6300e-003</b>		<b>105.6992</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>	<b>0.0000</b>	<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.6 Paving - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
<b>Total</b>	<b>0.0403</b>	<b>0.0233</b>	<b>0.3384</b>	<b>1.0600e-003</b>	<b>0.1141</b>	<b>8.8000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.1000e-004</b>	<b>0.0311</b>		<b>105.6336</b>	<b>105.6336</b>	<b>2.6300e-003</b>		<b>105.6992</b>

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
<b>Total</b>	<b>0.4296</b>	<b>0.2481</b>	<b>3.6098</b>	<b>0.0113</b>	<b>1.2171</b>	<b>9.4300e-003</b>	<b>1.2266</b>	<b>0.3229</b>	<b>8.6800e-003</b>	<b>0.3315</b>		<b>1,126.7583</b>	<b>1,126.7583</b>	<b>0.0280</b>		<b>1,127.4583</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
<b>Total</b>	<b>0.4296</b>	<b>0.2481</b>	<b>3.6098</b>	<b>0.0113</b>	<b>1.2171</b>	<b>9.4300e-003</b>	<b>1.2266</b>	<b>0.3229</b>	<b>8.6800e-003</b>	<b>0.3315</b>		<b>1,126.7583</b>	<b>1,126.7583</b>	<b>0.0280</b>		<b>1,127.4583</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**Village South Specific Plan (Proposed)**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
<b>Maximum</b>	<b>237.0656</b>	<b>46.4460</b>	<b>39.6338</b>	<b>0.1195</b>	<b>18.2032</b>	<b>2.0456</b>	<b>20.2488</b>	<b>9.9670</b>	<b>1.8820</b>	<b>11.8490</b>	<b>0.0000</b>	<b>12,035.3440</b>	<b>12,035.3440</b>	<b>1.9482</b>	<b>0.0000</b>	<b>12,060.6013</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
<b>Total</b>	<b>40.7912</b>	<b>67.7872</b>	<b>202.7424</b>	<b>0.6043</b>	<b>45.9592</b>	<b>2.4640</b>	<b>48.4231</b>	<b>12.2950</b>	<b>2.4399</b>	<b>14.7349</b>	<b>0.0000</b>	<b>74,422.3787</b>	<b>74,422.3787</b>	<b>2.8429</b>	<b>0.4832</b>	<b>74,637.4417</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
<b>Total</b>	<b>40.7912</b>	<b>67.7872</b>	<b>202.7424</b>	<b>0.6043</b>	<b>45.9592</b>	<b>2.4640</b>	<b>48.4231</b>	<b>12.2950</b>	<b>2.4399</b>	<b>14.7349</b>	<b>0.0000</b>	<b>74,422.3787</b>	<b>74,422.3787</b>	<b>2.8429</b>	<b>0.4832</b>	<b>74,637.4417</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>		<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
<b>Total</b>	<b>0.1835</b>	<b>4.1800</b>	<b>1.4144</b>	<b>0.0128</b>	<b>0.3810</b>	<b>0.0137</b>	<b>0.3948</b>	<b>0.1034</b>	<b>0.0131</b>	<b>0.1165</b>		<b>1,380.3262</b>	<b>1,380.3262</b>	<b>0.0941</b>		<b>1,382.6791</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>	<b>0.0000</b>	<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
<b>Total</b>	<b>0.1835</b>	<b>4.1800</b>	<b>1.4144</b>	<b>0.0128</b>	<b>0.3810</b>	<b>0.0137</b>	<b>0.3948</b>	<b>0.1034</b>	<b>0.0131</b>	<b>0.1165</b>		<b>1,380.3262</b>	<b>1,380.3262</b>	<b>0.0941</b>		<b>1,382.6791</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
<b>Total</b>	<b>0.0638</b>	<b>0.0415</b>	<b>0.4755</b>	<b>1.3300e-003</b>	<b>0.1369</b>	<b>1.1400e-003</b>	<b>0.1381</b>	<b>0.0363</b>	<b>1.0500e-003</b>	<b>0.0374</b>		<b>132.5649</b>	<b>132.5649</b>	<b>3.9900e-003</b>		<b>132.6646</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
<b>Total</b>	<b>0.0638</b>	<b>0.0415</b>	<b>0.4755</b>	<b>1.3300e-003</b>	<b>0.1369</b>	<b>1.1400e-003</b>	<b>0.1381</b>	<b>0.0363</b>	<b>1.0500e-003</b>	<b>0.0374</b>		<b>132.5649</b>	<b>132.5649</b>	<b>3.9900e-003</b>		<b>132.6646</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
<b>Total</b>	<b>0.0709</b>	<b>0.0462</b>	<b>0.5284</b>	<b>1.4800e-003</b>	<b>0.1521</b>	<b>1.2700e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1700e-003</b>	<b>0.0415</b>		<b>147.2943</b>	<b>147.2943</b>	<b>4.4300e-003</b>		<b>147.4051</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
<b>Total</b>	<b>0.0709</b>	<b>0.0462</b>	<b>0.5284</b>	<b>1.4800e-003</b>	<b>0.1521</b>	<b>1.2700e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1700e-003</b>	<b>0.0415</b>		<b>147.2943</b>	<b>147.2943</b>	<b>4.4300e-003</b>		<b>147.4051</b>

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>		<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
<b>Total</b>	<b>0.0665</b>	<b>0.0416</b>	<b>0.4861</b>	<b>1.4300e-003</b>	<b>0.1521</b>	<b>1.2300e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1300e-003</b>	<b>0.0415</b>		<b>142.1207</b>	<b>142.1207</b>	<b>4.0000e-003</b>		<b>142.2207</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>	<b>0.0000</b>	<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.4 Grading - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
<b>Total</b>	<b>0.0665</b>	<b>0.0416</b>	<b>0.4861</b>	<b>1.4300e-003</b>	<b>0.1521</b>	<b>1.2300e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1300e-003</b>	<b>0.0415</b>		<b>142.1207</b>	<b>142.1207</b>	<b>4.0000e-003</b>		<b>142.2207</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
<b>Total</b>	<b>3.0904</b>	<b>14.8350</b>	<b>23.2704</b>	<b>0.0926</b>	<b>7.0087</b>	<b>0.0749</b>	<b>7.0836</b>	<b>1.8799</b>	<b>0.0699</b>	<b>1.9498</b>		<b>9,481.0104</b>	<b>9,481.0104</b>	<b>0.3984</b>		<b>9,490.9691</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
<b>Total</b>	<b>3.0904</b>	<b>14.8350</b>	<b>23.2704</b>	<b>0.0926</b>	<b>7.0087</b>	<b>0.0749</b>	<b>7.0836</b>	<b>1.8799</b>	<b>0.0699</b>	<b>1.9498</b>		<b>9,481.0104</b>	<b>9,481.0104</b>	<b>0.3984</b>		<b>9,490.9691</b>

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
<b>Total</b>	<b>2.8211</b>	<b>11.4799</b>	<b>21.2591</b>	<b>0.0893</b>	<b>7.0088</b>	<b>0.0601</b>	<b>7.0688</b>	<b>1.8799</b>	<b>0.0557</b>	<b>1.9356</b>		<b>9,155.1981</b>	<b>9,155.1981</b>	<b>0.3538</b>		<b>9,164.0437</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
<b>Total</b>	<b>2.8211</b>	<b>11.4799</b>	<b>21.2591</b>	<b>0.0893</b>	<b>7.0088</b>	<b>0.0601</b>	<b>7.0688</b>	<b>1.8799</b>	<b>0.0557</b>	<b>1.9356</b>		<b>9,155.1981</b>	<b>9,155.1981</b>	<b>0.3538</b>		<b>9,164.0437</b>

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
<b>Total</b>	<b>0.0469</b>	<b>0.0282</b>	<b>0.3349</b>	<b>1.0300e-003</b>	<b>0.1141</b>	<b>9.0000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.3000e-004</b>	<b>0.0311</b>		<b>102.6928</b>	<b>102.6928</b>	<b>2.7000e-003</b>		<b>102.7603</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
<b>Total</b>	<b>0.0469</b>	<b>0.0282</b>	<b>0.3349</b>	<b>1.0300e-003</b>	<b>0.1141</b>	<b>9.0000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.3000e-004</b>	<b>0.0311</b>		<b>102.6928</b>	<b>102.6928</b>	<b>2.7000e-003</b>		<b>102.7603</b>

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>		<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
<b>Total</b>	<b>0.0444</b>	<b>0.0257</b>	<b>0.3114</b>	<b>1.0000e-003</b>	<b>0.1141</b>	<b>8.8000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.1000e-004</b>	<b>0.0311</b>		<b>99.5045</b>	<b>99.5045</b>	<b>2.4700e-003</b>		<b>99.5663</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>	<b>0.0000</b>	<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.6 Paving - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
<b>Total</b>	<b>0.0444</b>	<b>0.0257</b>	<b>0.3114</b>	<b>1.0000e-003</b>	<b>0.1141</b>	<b>8.8000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.1000e-004</b>	<b>0.0311</b>		<b>99.5045</b>	<b>99.5045</b>	<b>2.4700e-003</b>		<b>99.5663</b>

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
<b>Total</b>	<b>0.4734</b>	<b>0.2743</b>	<b>3.3220</b>	<b>0.0107</b>	<b>1.2171</b>	<b>9.4300e-003</b>	<b>1.2266</b>	<b>0.3229</b>	<b>8.6800e-003</b>	<b>0.3315</b>		<b>1,061.3818</b>	<b>1,061.3818</b>	<b>0.0264</b>		<b>1,062.0410</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
<b>Total</b>	<b>0.4734</b>	<b>0.2743</b>	<b>3.3220</b>	<b>0.0107</b>	<b>1.2171</b>	<b>9.4300e-003</b>	<b>1.2266</b>	<b>0.3229</b>	<b>8.6800e-003</b>	<b>0.3315</b>		<b>1,061.3818</b>	<b>1,061.3818</b>	<b>0.0264</b>		<b>1,062.0410</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Attachment C

<b>Local Hire Provision Net Change</b>	
<b>Without Local Hire Provision</b>	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
<b>With Local Hire Provision</b>	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
<b><i>% Decrease in Construction-related GHG Emissions</i></b>	<b>17%</b>

**EXHIBIT B**



## ***Paul Rosenfeld, Ph.D.***

*Principal Environmental Chemist*

**Chemical Fate and Transport & Air Dispersion Modeling**

**Risk Assessment & Remediation Specialist**

### **Education**

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

### **Professional Experience**

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

## **Professional History:**

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner  
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)  
UCLA School of Public Health; 2003 to 2006; Adjunct Professor  
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator  
UCLA Institute of the Environment, 2001-2002; Research Associate  
Komex H<sub>2</sub>O Science, 2001 to 2003; Senior Remediation Scientist  
National Groundwater Association, 2002-2004; Lecturer  
San Diego State University, 1999-2001; Adjunct Professor  
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager  
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager  
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor  
King County, Seattle, 1996 – 1999; Scientist  
James River Corp., Washington, 1995-96; Scientist  
Big Creek Lumber, Davenport, California, 1995; Scientist  
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist  
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

## **Publications:**

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. *Journal of Real Estate Research*. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermol and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

**Rosenfeld, P.E.** & Feng, L. (2011). *The Risks of Hazardous Waste*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*, 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

**Rosenfeld, P.E.**, J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

**Rosenfeld, P. E.**, M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing

**Rosenfeld, P.E.**, and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

**Rosenfeld P. E.**, J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

**Rosenfeld, P.E.**, and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

**Rosenfeld, P.E.**, and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

**Rosenfeld, P. E.**, Grey, M. A., Sellev, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

**Rosenfeld, P.E.**, Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office, Publications Clearinghouse (MS-6)*, Sacramento, CA Publication #442-02-008.

**Rosenfeld, P.E.**, and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

**Rosenfeld, P.E.**, and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

**Rosenfeld, P.E.**, C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

**Rosenfeld, P.E.**, and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

**Rosenfeld, P.E.**, and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.



Chollack, T. and **P. Rosenfeld**. (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

**Rosenfeld, P. E.** (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

**Rosenfeld, P. E.** (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

**Rosenfeld, P. E.** (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

**Rosenfeld, P. E.** (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

**Rosenfeld, P. E.** (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

## **Presentations:**

**Rosenfeld, P.E.**, Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

**Rosenfeld, P.E.** (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

**Rosenfeld, P.E.** (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States” Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

**Rosenfeld, P. E.** (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld P. E.** (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

**Rosenfeld P. E.** (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florida, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

**Paul Rosenfeld Ph.D.** (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

**Paul Rosenfeld Ph.D.** (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

**Paul Rosenfeld Ph.D.** (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

**Paul Rosenfeld, Ph.D.** (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

**Paul Rosenfeld, Ph.D.** (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

**Rosenfeld, P. E.,** Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.

**Paul Rosenfeld, Ph.D.** (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

**Paul Rosenfeld, Ph.D.** (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E.** and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E.** and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E.** and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

**Rosenfeld, P.E.** and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

**Rosenfeld, P.E.** (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

**Rosenfeld, P.E.** (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

**Rosenfeld, P.E.** (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E.,** C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.,** and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

**Rosenfeld, P.E.,** C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

**Rosenfeld, P.E.,** C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

**Rosenfeld, P.E.,** C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.,** C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

## **Teaching Experience:**

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

## **Academic Grants Awarded:**

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

## **Deposition and/or Trial Testimony:**

- In the United States District Court For The District of New Jersey  
Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et. al. *Defendant*.  
Case No.: 2:17-cv-01624-ES-SCM  
Rosenfeld Deposition. 6-7-2019
- In the United States District Court of Southern District of Texas Galveston Division  
M/T Carla Maersk, *Plaintiffs*, vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS “Conti Perdido”  
*Defendant*.  
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237  
Rosenfeld Deposition. 5-9-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica  
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants  
Case No.: No. BC615636  
Rosenfeld Deposition, 1-26-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica  
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants  
Case No.: No. BC646857  
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19
- In United States District Court For The District of Colorado  
Bells et al. Plaintiff vs. The 3M Company et al., Defendants  
Case: No 1:16-cv-02531-RBJ  
Rosenfeld Deposition, 3-15-2018 and 4-3-2018
- In The District Court Of Regan County, Texas, 112<sup>th</sup> Judicial District  
Phillip Bales et al., Plaintiff vs. Dow Agrosiences, LLC, et al., Defendants  
Cause No 1923  
Rosenfeld Deposition, 11-17-2017
- In The Superior Court of the State of California In And For The County Of Contra Costa  
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants  
Cause No C12-01481  
Rosenfeld Deposition, 11-20-2017
- In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois  
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants  
Case No.: No. 0i9-L-2295  
Rosenfeld Deposition, 8-23-2017
- In The Superior Court of the State of California, For The County of Los Angeles  
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC  
Case No.: LC102019 (c/w BC582154)  
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018
- In the Northern District Court of Mississippi, Greenville Division  
Brenda J. Cooper, et al., *Plaintiffs*, vs. Meritor Inc., et al., *Defendants*  
Case Number: 4:16-cv-52-DMB-JVM  
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish  
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants  
Case No.: No. 13-2-03987-5  
Rosenfeld Deposition, February 2017  
Trial, March 2017

In The Superior Court of the State of California, County of Alameda  
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants  
Case No.: RG14711115  
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County  
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants  
Case No.: LALA002187  
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County  
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants  
Law No.: LALA105144 - Division A  
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County  
Doug Pauls, et al., et al., Plaintiffs vs. Richard Warren, et al., Defendants  
Law No.: LALA105144 - Division A  
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia  
Robert Andrews, et al. v. Antero, et al.  
Civil Action NO. 14-C-30000  
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico  
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward  
DeRuyter, Defendants  
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County  
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant  
Case No 4980  
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17<sup>th</sup> Judicial Circuit, in and For Broward County, Florida  
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.  
Case Number CACE07030358 (26)  
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma  
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City  
Landfill, et al. Defendants.  
Case No. 5:12-cv-01152-C  
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas  
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.  
Case Number cc-11-01650-E  
Rosenfeld Deposition: March and September 2013  
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio  
John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*  
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)  
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division  
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs*, vs. BP Products North America, Inc., *Defendant*.  
Case 3:10-cv-00622  
Rosenfeld Deposition: February 2012  
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland  
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants  
Case Number: 03-C-12-012487 OT  
Rosenfeld Deposition: September 2013

**EXHIBIT C**





1640 5<sup>th</sup> St., Suite 204 Santa  
Santa Monica, California 90401  
Tel: (949) 887-9013  
Email: [mhagemann@swape.com](mailto:mhagemann@swape.com)

**Matthew F. Hagemann, P.G., C.Hg., QSD, QSP**

**Geologic and Hydrogeologic Characterization  
Industrial Stormwater Compliance  
Investigation and Remediation Strategies  
Litigation Support and Testifying Expert  
CEQA Review**

**Education:**

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

**Professional Certifications:**

California Professional Geologist

California Certified Hydrogeologist

Qualified SWPPP Developer and Practitioner

**Professional Experience:**

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

**Senior Regulatory and Litigation Support Analyst:**

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

### **Executive Director:**

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

### **Hydrogeology:**

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

**Policy:**

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

### Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

### Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

### Invited Testimony, Reports, Papers and Presentations:

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

**Hagemann, M.F.**, 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

**Hagemann, M.F.**, 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

**Hagemann, M.F.**, 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

**Hagemann, M.F.**, 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

**Hagemann, M.F.**, 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

**Hagemann, M.F.**, 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

**Hagemann, M.F.**, 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

**Hagemann, M.F.**, 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

**Hagemann, M.F.**, and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

**Hagemann, M.F.**, 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

**Hagemann, M.F.**, 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

**Hagemann, M.F.**, and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

**Hagemann, M.F.**, Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

**Hagemann, M. F.**, Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

**Hagemann, M.F.**, 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

**Hagemann, M.F.** and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

**Hagemann, M.F.**, 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.



**Hagemann, M.F.**, 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

**Other Experience:**

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.



Alice Okumura <alice.okumura@lacity.org>

### CPC-2023-4573-DB-CU-HCA at 8331 - 8349 West Third Street, 90048

1 message

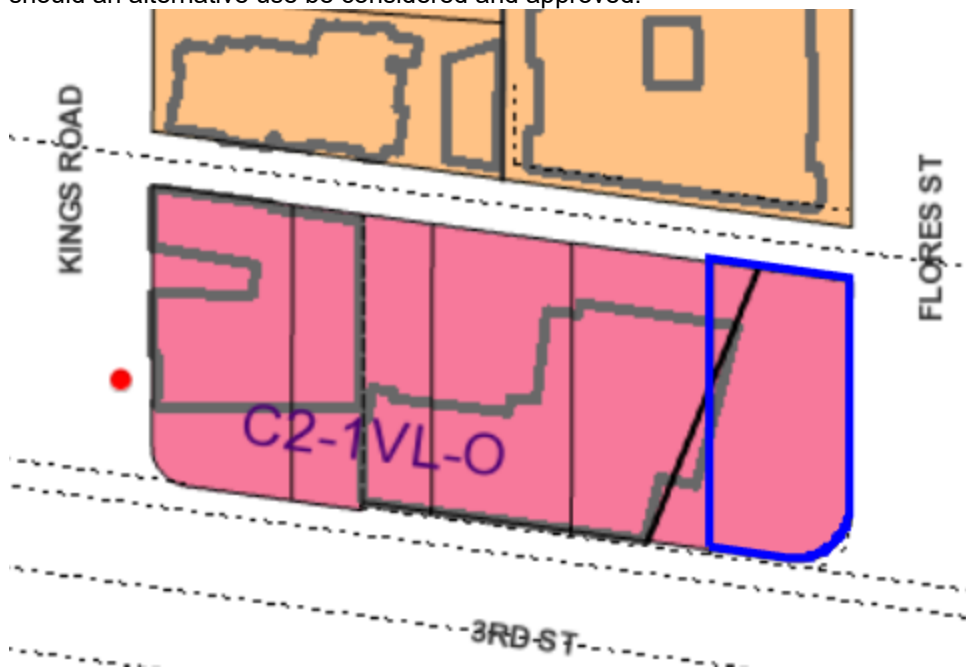
Alex Walter <awwalter@gmail.com>  
To: Alice.Okumura@lacity.org

Wed, Jan 10, 2024 at 2:24 PM

Alice Okumura . . .

My 60 years of real estate planning and development experience tells me that the current and foreseeable future highest and best use for the subject property is only or mostly **PARKING**.

Only if the subject property is combined with all other commercial properties west of the subject property to KINGS ROAD should an alternative use be considered and approved.



Alex Walter  
8336 Blackburn Ave, Apt 7  
Los Angeles CA 90048-4249

Voice & Text Cell: 720-448-4008

email: [awwalter@gmail.com](mailto:awwalter@gmail.com)



Alice Okumura &lt;alice.okumura@lacity.org&gt;

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**Re: Flores & 3rd Building**

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Thao Tran &lt;thao.tran@lacity.org&gt;

Mon, Dec 18, 2023 at 5:00 PM

To: Daniel Fazzino &lt;daniellouisfazzino@gmail.com&gt;

Cc: Alice Okumura &lt;alice.okumura@lacity.org&gt;, Jennifer Torres &lt;jenny.torres@lacity.org&gt;

Hi Daniel,

Thank you for sharing your feedback with our office. Councilwoman Yaroslavsky is interested in hearing from the community about this project. She wants to encourage the community to further engage with the development team to work on mutually beneficial solutions. Our office is not a decision maker on this project. There will be at least two City-hosted public hearings in the future for this project. Additionally, the developer is scheduled to present before the [Mid City West Neighborhood Council \(MCWNC\)](#) for a vote on Tuesday, January 9th, 2024. The Councilwoman is not on the board at MCWNC.

I want to provide you with some background information on this project. On 7/3/2023 the property owner filed an application with the LA City Department of City Planning requesting, pursuant to the State Density Bonus program, to construct an 8-story 77 unit development with ground floor retail. Eight of the units would be reserved for Extremely low income households. As required by State Law, the Department will process the case under case number [CPC-2023-4573-DB-CU-SPR-HCA](#) (this link will be updated through the Department's review process). Comments should be provided to the City Planning Department staff who is processing the case and maintaining the official record: Alice Okumura <alice.okumura@lacity.org>. You can also ask Alice to add you to the interested parties list for this case to ensure that you receive project updates.

For background on the State Density Bonus program, please see [this brochure](#) produced by SCAG. The City has very little discretion when applicants submit projects under State Density Bonus laws. If you would like to learn more about the development review process, this [Planning 101](#) video provides a good overview of the Planning Department's review process for this and other cases; including information on the different decision makers.

Given the strong public reaction to the lack of parking stalls at this proposed development, I looked into the parking codes currently required on new developments. I regret to inform you that I also learned that the developer is no longer required to include parking in new developments. This is a result of a new State Bill AB2097 signed last year and here is the relevant part you should know:

*"On September 22, 2022, the Governor signed Assembly Bill (AB) 2097, which added Government Code Section (§) 65863.2. AB 2097 prohibits a public agency from imposing or enforcing any minimum automobile parking requirement on any residential, commercial, or other development project"*

I hope this information is useful. Let me know if you have any questions.

Respectfully,

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[cd5.lacity.gov](https://cd5.lacity.gov)**Thao N. Tran****FIELD DEPUTY - MID-CITY WEST/P.I.C.O.****O:** (213) 473-7005**C:** (213) 898-4959Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012

On Mon, Dec 18, 2023 at 2:10 PM Daniel Fazzino <[daniellouisfazzino@gmail.com](mailto:daniellouisfazzino@gmail.com)> wrote:

Hi Thao,

I live on North Sweetzer and Beverly, two blocks away from the proposed demolition site on Flores and 3rd street. I am very concerned about the demolition of these historic buildings and request for approval of an 8 story apartment complex. This will completely disrupt the peace and charm of the best neighborhood in Los Angeles (not only during prolonged construction but afterwards), not to mention parking, safety and security concerns. What is being done to resist this, and maintain the architectural integrity of this historical district?

Thank you,

Daniel Fazzino



Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

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## Case number CPC-2023-4573-DB-CU-HCA

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**freddy izkowicz** <[freddyfarkels@sbcglobal.net](mailto:freddyfarkels@sbcglobal.net)>  
To: [alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)

Mon, Dec 18, 2023 at 1:23 PM

Dear Ms. Okumura , I am writing you about the new proposed project at 8331 8349 West 3rd Street, I understand that there will be very limited parking in the building and the future tennents would require to park on the street , 78 units I would say would be be a minimum of 125 cars , on S Flores street we have only 35 spaces in total , finding parking is very difficult as it is, if this project is approved without parking for their tennents, it will make life very difficult for the residents here , I feel that if woman have to walk several blocks at night , it puts their safety in jeopardy , also it can be difficult for senior citizens, we will not be able to have guest visit us! How do we carry our grocery's for blocks ? I hope you consider not allowing this project to continue unless they provide parking for the building, that's my only grievance! I have nothing against the project and progress ,

Thank you  
Freddy Ickowicz

[Sent from AT&T Yahoo Mail for iPhone](#)

Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

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## New Building on Flores and 3rd Street...

1 message

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**Iqbal Ahmed** <[iqbaltahmed@gmail.com](mailto:iqbaltahmed@gmail.com)>

Mon, Dec 18, 2023 at 6:00 PM

To: [alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)

Dear Ms. Okumura,

I'm not sure who to address my email to, so please forward it to the relevant party who advocates for LA residents.

I'm a constituent of your district, and my partner Phyllis Posner and I have happily lived in Beverly Grove for over 10 years. I'm now writing out of concern for a new real estate development that will fundamentally change the very nature of our neighborhood. The project is the new giant apartment building and retail space that has broken ground at Flores and 3rd Street, [8331-8349 West Third Street, 90048](#).

I've read that the building will have 77 dwelling units with only 38 parking spaces, many of which may be dedicated to the commercial spaces at the base of the building. As a resident in the neighborhood, I can tell you that parking is already VERY limited. I pay for an annual parking permit for myself as well as a single guest permit. And with the recent addition of a new La La Land Cafe at the end of my block, I am unable to park on my street during the day. It's unfortunate, and a major inconvenience, but at the same time I understand the costs of modernization and development. It's a fact of life, and I share this to show that I'm not stuck in the past and against forward progress.

However, I would like appeal to you to resolve some major concerns that I have about this new construction on Flores and Third. I believe it is imperative that the building developer solves the problems that he/she is creating. First, parking. I believe that making a massive 8-story building WITHOUT adequate parking is a slap in the face to all the current neighborhood residents who already have to fend for parking. I believe the developer should be required to build an internal parking structure that can accommodate ALL vehicles connected to the residents and commercial shoppers.

I see that 78 bike stalls will be made, but the reality is that only a small percentage of Angelenos living in my neighborhood use public transportation or bicycles. And I believe that many (if not all) of the residents in this new structure will have vehicles that they will park in the neighborhood — with or without a permit. I would ask that the city DENIES parking permits to residents of this building.

I am also frankly aghast that such a giant 8-story physical structure has been approved. It will be TWICE as tall as the tallest 4-story buildings in the neighborhood. Some of the small charm of my neighborhood is that it has historically felt neighborly by virtue of having moderately-sized structures. An 8-story highrise will fundamentally change the look and feel of the entire community. It will tower physically and symbolically above the entire neighborhood.

Please fight for the residents of this neighborhood. We are not against change. We are against developers who give lip service to the concept of change but are primarily concerned with making large sums of money and leaving a trail of problems behind them. I believe the developers must be held responsible for the solutions in advance.

Feel free to reach out if any further conversation is helpful. I merely wanted to write to go on-record with my feelings on this new construction.

Sincerely,  
Iqbal Ahmed and Phyllis Posner

**IQBAL AHMED**

Director

[iqbalahmed.com](http://iqbalahmed.com)[schoolfieldmedia.com](http://schoolfieldmedia.com)

m. 213.500.5402

Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

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## 8331 W 3rd Street Development

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jeanne wanlass <[jcwanlass@yahoo.com](mailto:jcwanlass@yahoo.com)>

Thu, Dec 28, 2023 at 1:01 PM

To: Thao Tran <[thao.tran@lacity.org](mailto:thao.tran@lacity.org)>Cc: Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>, Jennifer Torres <[jenny.torres@lacity.org](mailto:jenny.torres@lacity.org)>

Thank you, Thao.

Alice, I would like to comment that I am very concerned about the proposed project at the corner of W. Third and Flores. Currently there is already a severe lack of parking available in the neighborhood. Merchants on W. Third already have to offer valet parking services to their customers. There is not enough parking for residents as it is. Guest permits are only for the one block where a residence is located. It is unrealistic to believe that 77 units of approximately 2 bedrooms each in Los Angeles will need no parking or will be able to park on the already overwhelmed local streets. In fact, there will be a need for at least 150 parking spaces for this building as envisioned. As proposed, this building will have a severe negative impact on the community, which is a valid reason to require the developers to provide parking, even in a building which otherwise may qualify for a parking waiver.

In addition, the building is too tall for the neighborhood. All of the other local building are only 4 stories high. Furthermore, if the developers are going to be given such huge concessions, then there should be more than only 7 low cost units.

Please keep me informed about this project.

Thank you,  
Jeanne Wanlass

On Monday, December 18, 2023 at 04:42:33 PM PST, Thao Tran <[thao.tran@lacity.org](mailto:thao.tran@lacity.org)> wrote:

Hi Jeanne,

Thank you for taking the time to speak to me today. Councilwoman Yaroslavsky is interested in hearing from the community about this project. She wants to encourage the community to further engage with the development team to work on mutually beneficial solutions. Our office is not a decision maker on this project. There will be at least two City-hosted public hearings in the future for this project.

In the future, please also send your comments and any questions to the Planning Department staff assigned to this case to be sure that your comments are included in the official record for the case; for this case the Planning staff is Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>. You can also ask the planning staff to add you to the interested parties list to receive future notifications related to this project. I'm looping in Alice Okumura on this email for her awareness of your comments.

If you would like to learn more about the development review process, this [Planning 101](#) video provides a good overview of the Planning Department's review process for this and other cases; including information on the different decision makers.

The developer is also scheduled to give a presentation before the [Mid City West Neighborhood Council](#) the evening of Tuesday, January 9th, 2024 at 7pm. This community meeting is open to the public and you are welcome to attend. Let me know if you have any questions.

Respectfully,



[cd5.lacity.gov](https://cd5.lacity.gov)

**Thao N. Tran**

**FIELD DEPUTY - MID-CITY WEST/CARTHAYS**

**O:** (213) 473-7005

**C:** (213) 898-4959

Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012





Alice Okumura <alice.okumura@lacity.org>

## 8331 W 3rd Street Development

Thao Tran <thao.tran@lacity.org>  
To: Alice Okumura <alice.okumura@lacity.org>  
Cc: Sophia Kim <sophia.kim@lacity.org>

Mon, Dec 18, 2023 at 5:06 PM

Hi Alice,

I apologize, Jeanne made her comments to me in a telephone conversation. Her remarks are centered around the lack of parking development. I hope you don't mind me copying you on my responses to the residents. They often feel like they are being passed off unless I do that.

Thank you for the follow up!

Cheers,  
Thao

On Mon, Dec 18, 2023 at 5:01 PM Alice Okumura <alice.okumura@lacity.org> wrote:

Hi Thao,

Just to clarify, was there an email or written feedback that Jeanne submitted? If so, can you please forward her submission?

Thank you,  
Alice



**Alice Okumura**

Pronouns: She/Her

City Planning Associate

**Los Angeles City Planning**

200 N. Spring St., Room 763

Los Angeles, CA 90012

T: (213) 978-1356 | Planning4LA.org



*Please note that on January 22, 2024 the Processes and Procedures Ordinance will become operative. Applications filed on or after this date are required to use the new forms available on the Department's [Forms page](#).*

On Mon, Dec 18, 2023 at 4:42 PM Thao Tran <thao.tran@lacity.org> wrote:

Hi Jeanne,

Thank you for taking the time to speak to me today. Councilwoman Yaroslavsky is interested in hearing from the community about this project. She wants to encourage the community to further engage with the development team to work on mutually beneficial solutions. Our office is not a decision maker on this project. There will be at least two City-hosted public hearings in the future for this project.

In the future, please also send your comments and any questions to the Planning Department staff assigned to this case to be sure that your comments are included in the official record for the case; for this case the Planning staff is Alice Okumura <alice.okumura@lacity.org>. You can also ask the planning staff to add you to the interested parties list to receive future notifications related to this project. I'm looping in Alice Okumura on this email for her awareness of your comments.

If you would like to learn more about the development review process, this [Planning 101](#) video provides a good overview of the Planning Department's review process for this and other cases; including information on the different

decision makers.

The developer is also scheduled to give a presentation before the [Mid City West Neighborhood Council](#) the evening of Tuesday, January 9th, 2024 at 7pm. This community meeting is open to the public and you are welcome to attend. Let me know if you have any questions.

Respectfully,

--



[cd5.lacity.gov](http://cd5.lacity.gov)

**Thao N. Tran**

**FIELD DEPUTY - MID-CITY WEST/CARTHAYS**

**O:** (213) 473-7005

**C:** (213) 898-4959

Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012

--



[cd5.lacity.gov](http://cd5.lacity.gov)

**Thao N. Tran**

**FIELD DEPUTY - MID-CITY WEST/P.I.C.O.**

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Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012



Alice Okumura <alice.okumura@lacity.org>

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## Concern about Lack of Parking

1 message

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**Jennifer B** <jennibel6@gmail.com>

Thu, Jan 11, 2024 at 10:29 AM

To: alice.okumura@lacity.org

Hello. I was informed, and hope it is not true, that a developer is planning on building a 78 unit on 3rd and Flores with no parking. If this is the case, you immediately need to ensure that a parking structure is built into the plans for this building, for a large myriad of common sense reasons. This is a simple solution. Provide parking within residential buildings.

Thank you.



Alice Okumura &lt;alice.okumura@lacity.org&gt;

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**8339 W. 3rd St.**

1 message

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**john bellucci** <john.bellucci@gmail.com>

Fri, Jan 5, 2024 at 2:39 PM

To: alice.okumura@lacity.org

Cc: jenny.torres@lacity.org

Dear Ms. Okumura,

I'm writing to express my concerns about the proposed development at 8339 W. 3rd St.

My partner and I have lived at [133 S. Flores St.](#), a few steps from 3rd St., for eighteen years. In that time, we've seen our neighborhood go through a good deal of change. Though we mourn the loss of some of the prettier, two-story buildings to the flood of four-story condos, we understand ours is a desirable area to live in and welcome new neighbors. We are very aware of the housing crisis in Los Angeles and applaud efforts to mitigate it.

The proposed structure at the corner of 3rd and Flores, though it purports to be part of a solution to that crisis, seems to me poorly conceived or conceived in bad faith.

Its developers justify its huge bulk - at eight stories and at least a hundred feet high, it would be more than twice as tall as our building, fronting a commercial street that consists largely of single story businesses - and ask for several construction waivers by insisting that it will supply housing for - eight very low income residents.

In addition to those eight units, they plan to offer sixty-nine at market rate, for a total of seventy-seven.

For those seventy-seven units - those seventy-seven singles, couples and families - 8339 W. 3rd will provide, as far as I can tell, exactly no parking (the thirty-eight vehicle parking stalls mentioned in the proposal are for 'commercial parking').

Instead, we are told that, because of the building's proximity to the 'urban hub' of La Cienega and 3rd, residents will rely on public transportation and bicycles.

It's hard to take this seriously. None, or very few, of the people who will be able to afford to live in the sixty-nine market rate units will rely on public transportation and bicycles to get to work. They will all own cars. Where will the cars go? Our building has tandem parking for every unit. All of the newer condos have subterranean garages. Most of the other residential structures in the neighborhood rely on street parking. Our streets are *always* clogged with parked cars. Where will the residents of 8339 W. 3rd park theirs?

It's my opinion that, rather than contributing to the neighborhood, this project will disrupt and diminish it. I've written to Councilperson Yaroslavsky, urging her to reconsider permitting it to be built as conceived. A more modest building that takes into account the reality of living in Los Angeles would be far more beneficial to the well-being of the area's current, and future, residents.

Thanks for your time, look forward to seeing you at the public hearing Tuesday January 9.

Best,  
John Bellucci

[133 S. Flores St. Apt 2B](#)  
[LA, CA 90048](#)  
917 288 0477



Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

## Re: Against demolition on South Flores St and 1st (Beverly Grove).

Thao Tran <[thao.tran@lacity.org](mailto:thao.tran@lacity.org)>

Mon, Dec 18, 2023 at 11:36 AM

To: Lacey Corkery <[laceylenore@gmail.com](mailto:laceylenore@gmail.com)>

Cc: Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>, Jennifer Torres <[jenny.torres@lacity.org](mailto:jenny.torres@lacity.org)>

Hi Lacey,

Thank you for providing your feedback regarding this project. Councilwoman Yaroslavsky is interested in hearing from the community about this project. She wants to encourage the community to further engage with the development team to work on mutually beneficial solutions. Our office is not a decision maker on this project. There will be at least two City-hosted public hearings in the future for this project.

In the future, please also send your comments and any questions to the Planning Department staff assigned to this case to be sure that your comments are included in the official record for the case; for this case the Planning staff is Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>. You can also ask the planning staff to add you to the interested parties list to receive future notifications related to this project. I'm looping in Alice Okumura on this email for her awareness of your comments.

If you would like to learn more about the development review process, this [Planning 101](#) video provides a good overview of the Planning Department's review process for this and other cases; including information on the different decision makers.

I hope this information is useful and I look forward to hearing more discussions between the community and the developer to help shape this project going forward.

Respectfully,

--



[cd5.lacity.gov](http://cd5.lacity.gov)

**Thao N. Tran**

**FIELD DEPUTY - MID-CITY WEST/P.I.C.O.**

**O:** (213) 473-7005

**C:** (213) 898-4959

Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012

On Mon, Dec 18, 2023 at 10:33 AM Lacey Corkery <[laceylenore@gmail.com](mailto:laceylenore@gmail.com)> wrote:

I hope this email finds you well. My name is Lacey Corkery and I am a resident of Beverly Grove and live on the South Flores block. I am writing to you today to express my concerns and opposition to the proposed demolition of the historic buildings in our community.

Firstly, I want to acknowledge the efforts being made to enhance our neighborhood. I understand the importance of progress and development. However, I firmly believe that we should carefully consider the long-term impact of such decisions, especially when it involves the demolition of structures that hold historical and cultural significance for our community.

The buildings slated for demolition have been an integral part of our neighborhood and they contribute to the unique character that many of us cherish. Additionally, I am deeply concerned about the potential displacement of our older neighbors who have called these buildings home for decades. Their well-being and sense of community should be paramount in our decision-making process.

**• Displacement of Older Residents:**

The demolition of their existing homes will force them to relocate, disrupting established social networks and potentially adversely affecting their well-being.

**• Impact on Quality of Life for Seniors:**

Forcing current residents to relocate will have negative consequences for their well-being; such as increased stress, the disruption of routines, and potential challenges in finding suitable alternative housing that meets their needs.

**• Loss of Community Wisdom:**

The older residents often contribute significantly to the community through their experiences, knowledge, and wisdom.

**• Historical or Cultural Significance:**

The buildings slated for demolition have historical or cultural significance. Preservation is crucial for maintaining the character and identity of the neighborhood

**• Environmental Impact:**

Demolishing existing structures creates a lot of unnecessary waste. The construction process is likely to release dust, pollutants, and other airborne particles, impacting air quality in the vicinity. Consideration should be given to the energy consumption associated with the demolition and construction phases. From heavy machinery operations to transportation of materials, these activities contribute to a substantial carbon footprint, which we should strive to minimize for the sake of environmental sustainability.

**• Traffic and Parking Issues:**

New construction brings an influx of residents, leading to increased traffic and parking problems. The new apartment building will exacerbate existing congestion and make it difficult for current residents to find parking. This is a street parking permit only neighborhood with all ready a huge parking issue and difficulty finding parking. A new building that doesn't provide parking structure will make it impossible for current residents to find street parking.

**• Noise and Disruption:**

Construction is noisy and disruptive. The noise and inconvenience during construction phase will disrupt current residents.

**• Density and Overcrowding:**

The new building will significantly increase population density, leading to overcrowding issues. This can result in added pressure on public services and a decrease in the overall quality of life

**• Property Values:**

The new construction will negatively affect property values, either during the construction phase or afterward.

**• Affordability and Gentrification:**

There are major concerns about the potential for gentrification and the displacement of lower-income residents. New developments often attract wealthier individuals, potentially driving up property prices and making the area less affordable for current residents

Thank you for taking the time to consider my perspective on this matter.

--

Regards,  
Lacey Corkery  
[lacylenore@gmail.com](mailto:lacylenore@gmail.com)  
773.430.7565



Alice Okumura &lt;alice.okumura@lacity.org&gt;

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## Urgent: Concerns about proposed development, 3rd and Flores

1 message

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**Maude Etkin** <maudeetkin@gmail.com>  
To: alice.okumura@lacity.org

Wed, Jan 10, 2024 at 9:39 AM

Dear Alice,

I hope this message finds you well. I am reaching out to express my concerns about the proposed development project for 3rd and Flores, and I appreciate your time in considering the impact it may have on our community.

My main worry is the potential disruption caused by the construction and the subsequent operation of this large commercial and residential building, especially at the proposed 8-story height. The noise and prolonged construction period could significantly affect the quality of life for residents. Why would this building be able to have exemptions with height restrictions?

Additionally, I'd like to draw attention to the parking situation outlined in the proposal. The proposed no-parking policy for residents inside the building, with overflow parking directed to Flores Street and surrounding areas, raises concerns about increased traffic congestion and safety. This could pose challenges not only for the affected residents but also for the overall flow of traffic in our neighborhood. I worry about safely exiting my garage or apartment with the extra activity.

I believe that preserving the unique character of our community is essential. An 8-story building might stand out in a way that doesn't harmonize with the existing architecture, impacting the visual appeal of the area.

I kindly request that you carefully weigh these concerns during the decision-making process. Our community values its residents, and I am hopeful that your thoughtful consideration will lead to a decision that aligns with the best interests of the neighborhood.

Thank you for your time and attention to this matter, and I look forward to a decision that takes into account the well-being of our community.

Sincerely,  
Maude Etkin  
Resident at 133 s Flores St  
248.320.7108

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Maude Etkin Design  
248.320.7108



Alice Okumura &lt;alice.okumura@lacity.org&gt;

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**Questions re: 8331 W. 3rd Street and AB 2097**

1 message

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**Maxwell Riesberg** <maxwell@maxwell.io>  
To: alice.okumura@lacity.org

Wed, Jan 10, 2024 at 7:34 AM

Hi Alice - I was in attendance on the public hearing call yesterday am about [8331 W. 3rd Street](#), and I had a few follow up questions:

- Could you please add me to the list for updates / decisions / upcoming hearings on this matter?
- Are there additional meetings on this matter scheduled that I can attend?
- Per the presentation on yesterday's call, the developer is claiming exemption from needing to provide resident parking using Assembly Bill 2097.
  - I see in the ZIMAS system that this lot is considered to be eligible for AB 2097, but there isn't a major transit stop within a 1/2 mile. There are a few sparsely used bus stops nearby, hardly major. Closest major stop will be the Purple line stop at Wilshire and La Cienega, which is .9 miles walking distance. Given that, how is this lot eligible?
  - In the language of AB 2097, it mentions the exemption would not apply if the result would be "substantially negative impact" on the surrounding 1/2 mile. Clearly, there is unanimous opinion from the residents of this neighborhood that a parking exemption for this project would be a disastrously negative and downright dangerous. By whom and how is this "substantially negative impact" determination made? Is there a process for the residents of this neighborhood to make the case for this?

I would really appreciate you taking the time to answer these questions, thank you!

M

**MAXWELL  
RIESBERG**

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maxwell.io

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Alice Okumura <alice.okumura@lacity.org>

## New development at 8331 W 3rd St (corner of 3rd St and Flores St)

Thao Tran <thao.tran@lacity.org>

Mon, Dec 18, 2023 at 12:11 PM

To: writemikep@yahoo.com

Cc: Jennifer Torres <jenny.torres@lacity.org>, Alice Okumura <alice.okumura@lacity.org>

Hi Michael,

Thank you for your comments on this project. Recent community meetings related to the project have been hosted by the Mid City West Neighborhood Council's Plan and Land Use Committee (PLUC). The developer is scheduled to give a full presentation on the project before the Mid City West Neighborhood Council general board for a vote on Tuesday, January 9th, 2024 at 6:30pm. Councilwoman Yaroslavsky is not on the [Mid City West Neighborhood Council](#) and the meeting is open to the public for comment.

Comments should also be provided to the City Planning Department staff who is processing the case and maintaining the official record: Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>. You can also ask Alice to add you to the interested parties list for this case to ensure that you receive project updates.

I want to provide you with some background information on this project. On 7/3/2023 the property owner filed an application with the LA City Department of City Planning requesting, pursuant to the State Density Bonus program, to construct an 8-story 77 unit development with ground floor retail. Eight of the units would be reserved for Extremely low income households. As required by State Law, the Department will process the case under case number [CPC-2023-4573-DB-CU-SPR-HCA](#) (this link will be updated through the Department's review process).

For background on the State Density Bonus program, please see [this brochure](#) produced by SCAG. The City has very little discretion when applicants submit projects under State Density Bonus laws.

Given the strong public reaction to the lack of parking stalls at this proposed development, I looked into the parking codes currently required on new developments. I regret to inform you that I also learned that the developer is no longer required to include parking in new developments. This is a result of a new State Bill AB2097 signed last year and here is the relevant part you should know:

*"On September 22, 2022, the Governor signed Assembly Bill (AB) 2097, which added Government Code Section (§) 65863.2. AB 2097 prohibits a public agency from imposing or enforcing any minimum automobile parking requirement on any residential, commercial, or other development project"*

The City Planning Commission is an independent decision making body, so our office does not have any influence over their decisions. However, the Councilwoman is interested in hearing what the community thinks about the project and we appreciate you keeping us in the loop during the City's review process.

Respectfully,

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[cd5.lacity.gov](http://cd5.lacity.gov)

**Thao N. Tran**

**FIELD DEPUTY - MID-CITY WEST/P.I.C.O.**

**O:** (213) 473-7005

**C:** (213) 898-4959

Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012



Alice Okumura &lt;alice.okumura@lacity.org&gt;

## Housing development meeting

1 message

Thao Tran &lt;thao.tran@lacity.org&gt;

Tue, Dec 19, 2023 at 3:45 PM

To: nancy.sandercock@gmail.com

Cc: Alice Okumura &lt;alice.okumura@lacity.org&gt;, Jennifer Torres &lt;jenny.torres@lacity.org&gt;

Hi Sandra,

Thank you for your comment on this project. The recent community meetings related to the project were hosted by the Mid City West Neighborhood Council (MCWNC). Councilwoman Yaroslavsky is not on the Mid City West Neighborhood Council. I attend the neighborhood council meetings on the Councilwoman's behalf and I have confirmed the developer is scheduled to present to the MCWNC in their January 9th meeting for a vote.

I want to provide you with some background information on this project, on 7/3/2023 the property owner filed an application with the LA City Department of City Planning requesting, pursuant to the State Density Bonus program, to construct an 8-story 77 unit development with ground floor retail. Eight of the units would be reserved for Extremely low income households. As required by State Law, the Department will process the case under case number [CPC-2023-4573-DB-CU-SPR-HCA](#) (this link will be updated through the Department's review process). Comments should be provided to the City Planning Department staff who is processing the case and maintaining the official record: Alice Okumura <alice.okumura@lacity.org>. You can also ask Alice to add you to the interested parties list for this case to ensure that you receive project updates. Alice is copied here for awareness of your comments listed on this project.

For background on the State Density Bonus program, please see [this brochure](#) produced by SCAG. The City has very little discretion when applicants submit projects under State Density Bonus laws.

Since the decision maker will be the City Planning Commission, it would be most appropriate to hold off on a meeting with our office until the City Planning Commission makes their decision. The City Planning Commission is an independent decision making body, so our office does not have any influence over their decisions. However, the Councilwoman is interested in hearing what the community thinks about the project and we appreciate you keeping us in the loop during the City's review process.

Given the strong public reaction to the lack of parking stalls at this proposed development, I looked into the parking codes currently required on new developments. I regret to inform you that I also learned that the developer is no longer required to include parking in new developments. This is a result of a new State Bill AB2097 signed last year and here is the relevant part you should know:

*"On September 22, 2022, the Governor signed Assembly Bill (AB) 2097, which added Government Code Section (§) 65863.2. AB 2097 prohibits a public agency from imposing or enforcing any minimum automobile parking requirement on any residential, commercial, or other development project"*

This information is meant to inform you about current municipal code regarding parking minimums and density bonuses on new developments. It does not imply your remarks made about the lack of parking, etc. are not valid concerns. If you would like to learn more about the development review process, this [Planning 101](#) video provides a good overview of the Planning Department's review process for this and other cases; including information on the different decision makers.

Let me know if you have any questions. In the meantime, I will keep my eyes out for your participation in future public hearings.

Respectfully,

--

**Thao N. Tran**

FIELD DEPUTY - MID-CITY WEST/P.I.C.O.

O: (213) 473-7005

C: (213) 898-4959



cd5.lacity.gov

Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012

----- Forwarded message -----

From: **Office of Councilmember Katy Yaroslavsky** <councilmember.yaroslavsky@lacity.org>

Date: Thu, Dec 14, 2023 at 9:54 AM

Subject: You have been assigned to a ticket

To: Thao Tran <thao.tran@lacity.org>



**COUNCILWOMAN**  
**KATY YAROSLAVSKY**  
**LOS ANGELES COUNCIL DISTRICT 5**

You have been assigned to this ticket [#2048 councilmember-katyyaroslavsky.zendesk.com/agent/tickets/2048](#)

Ticket contents here:



**Marley Powell** (Office of Councilmember Katy Yaroslavsky)

Dec 14, 2023, 12:54 PM EST

Thank you for contacting the Office of Councilwoman Katy Yaroslavsky!

It is an honor and privilege to serve the communities of the 5th Council District.

Copied on this email is the most appropriate member of our team to address your issue.

They will connect with you as soon as possible; you are also welcome to connect with them by responding directly to this email.



**Nancy Sandercock**

Dec 13, 2023, 5:11 PM EST

Dear City Council Member, Katy Yaroslavsky,

I'm writing to you with major concerns about a proposed development on the corner of 3rd St. and Flores: [8331 – 8349 W 3rd Street - CPC-2023-4573-DB-CU-HCA](#)

I'm a renter who has lived in the area for 18 years, and live in the building directly across the alley.

I am all for developments which actually help a community but this development has so many red flags it makes my head spin.

1. 8, EIGHT, stories on 3rd Street. Are you kidding me? There are people in my building who will never see daylight again - in Los Angeles!!! Ridiculous.
2. No parking for 77 units of residents
3. No proposed limits on dwelling inhabitants/occupants - 1 person or 8 people per unit?
4. Only 8 units out of 77 for low income housing? We have a low income and homelessness crisis going on here, especially in this neighbourhood. I'd think 25-50% should be geared low income people and households. Can't you see through the developer's plan to supply the bare minimum of low income housing to the council and later convert the these units to above market apartments or condos?!
5. Only 40 parking spots for retail shops. That means customers and workers both need to park on the streets, which are already maxed out. So many businesses fail because there isn't easy access to their stores or restaurants. This seems to me very short-sighted. Why make retail spaces that are doomed to fail?
6. 25 attendees of the last meeting voted against the development as currently proposed, yet *all* the council members voted for it.
7. No mailing went out about this second meeting on the subject of [8331 – 8349 W 3rd Street - CPC-2023-4573-DB-CU-HCA](#)
8. The first mailing was short notice — too close to Thanksgiving when neighbors were away. and the meetings are difficult for people holding jobs that fall outside 9-5 work hours. This meeting should have an online option for those who have to make meals for their families, work, or have mobility issues and can't attend in person.

I'll be at the meeting tonight, December 12th. I hope many of my neighbors will be too. I urge you to reconsider the conditional use permits this developer has requested. My votes for you in the future hinge on this.

Sincerely, Nancy Sandercock

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**City Hall Office**  
200 N. Spring Street, Suite 440  
Los Angeles, CA 90012  
213-473-7005

**District Office**  
6380 Wilshire Blvd., Suite 800  
Los Angeles, CA 90048  
323-866-1828

[councildistrict5.lacity.gov](https://councildistrict5.lacity.gov)



[2MX9E2-52XKR]Ticket-Id:2048Account-Subdomain:councilmember-katyyaroslavsky





Alice Okumura &lt;alice.okumura@lacity.org&gt;

## 78 unit

2 messages

**Rita Hand** <twohandson.rh@gmail.com>  
To: alice.okumura@lacity.org

Wed, Jan 10, 2024 at 10:11 AM

I just found out about the plan to build a 78 unit on Third and Flores st. I have lived in this neighborhood since 1962 when my parents moved to Flores St (near Beverly Blvd) . Over the last 10 yrs I have seen this neighborhood degrade from a very nice safe middle class family oriented neighborhood into a crime ridden, garbage strewn, homeless heaven for mental cases . As a child we would play on the streets until it got dark, as an adult, it is unsafe to step out at night alone. Police helicopters circle our homes and prevent sleep almost nightly . Under our new city counsel person I see no change from our previous councilman Koretz who ignored district problems and was essentially useless.

Now we have a plan to build 78 units VERY LOW INCOME units in the middle of our neighborhood. My understanding is these would be built without parking provisions since the project is supposedly close to metro lines. Which is a lie as the closest stop Wilshire is far from completion . I am familiar with the genius, Scott Weiner, a gay single man, that does not have children that need to be dropped at schools or is he a tradesperson that would need his tools in a truck so parking is not an issue for him when he pushed this legislation through, after his prop 50 amendment had failed miserably.

Additionally, has anyone taken into account that Ca has had one of the largest out migrations compared to other states, more than 75k in 2023 alone . Once again our councilperson is disregarding her taxpaying constituency in supporting and allowing this kind of outrageous unchecked development to occur in her district. Showing us her interests lay in the pockets of the developers vs taxpayers.

How will the need for 78-150 extra parking spaces impact an already dense area where parking restrictions have been instituted for residents that could not find parking near their home? How will the impact of a high rise with more cement covered ground impact the now flooded streets during a storm which never flooded before ( as the ground that the rain could penetrate is now covered with cement.) How will a 78 unit high rise impact the natural light of surrounding structures? How will bringing in very low income residents impact crime and the culture of this neighborhood? How did the Mayflower hotel conversion work??? It is very apparent that the vestiges of the prior culture of the Fairfax neighborhood is quickly being erased which is extremely sad considering the current political climate. Why is councilperson Yaroslavsky not considering her other Westwood or Bel aire neighborhoods for this type of overblown project.?

Lack of affordable housing can easily be resolved with a bit more insightful approach such as turning the 51 million square feet of empty office buildings in Los Angeles into housing and continued creation of successful ADUs in residential areas.

Additionally, from a business sense the cost of building is tremendous and in order to make any type of profit the contractor would need to cut costs so severely that we will be facing a 78 unit slum in 5 years. This is not to speak of the impact that construction will have on an area that is already congested due to construction on Wilshire blvd, Third St and potentially at the CBS site for the next 20 yrs! Currently today at times it can take 20 minutes to travel on Beverly Blvd/ 3rd st from La Cienega to La brea, a distance of less than 2 miles. How will more construction impact this traffic? How will more construction impact the integrity of our streets that some (not entire the neighborhood) after 40 year have just recently been repaved and already are seeing damage. How will our deluged sewer system handle this when our streets are already flooding more than they ever have? How will the sanitation of our streets be impacted when currently Beverly Blvd is garbage strewn without a single trashcan between Fairfax and La Cienega ( and if there is a public trashcan it is never emptied and overflowing) ?

I would love some answers to these questions although I suspect I will get an automatic AI generated response as I suspect this will never get to the sight of our dear council person as evidenced by her current track record.

Maybe I am wasting my time, but by chance if you do read this I implore our elected representative to PLEASE consider the opinions of those tax paying residents that have lived here for years and help us continue to restore NOT degrade the neighborhood with this monstrosity plan for unnecessary development.

Thank you  
Rita & Michael Hand

**Alice Okumura** <alice.okumura@lacity.org>  
To: Rita Hand <twohandson.rh@gmail.com>  
Cc: Trevor Martin <trevor.martin@lacity.org>

Thu, Jan 11, 2024 at 8:00 AM

Hello Rita,

Thank you for your email. Your comments have been received and you've been added to the interested parties list for case CPC-2023-4573-DB-CU-HCA located on 8331 W. 3rd Street to receive future notifications related to this project. Please let me know if you have any questions or any further feedback.

Best,  
Alice



**Alice Okumura**

Pronouns: She/Her

City Planning Associate

**Los Angeles City Planning**

200 N. Spring St., Room 763

Los Angeles, CA 90012

T: (213) 978-1356 | [Planning4LA.org](http://Planning4LA.org)



*Please note that on January 22, 2024 the Processes and Procedures Ordinance will become operative. Applications filed on or after this date are required to use the new forms available on the Department's [Forms page](#).*

[Quoted text hidden]



Sophia Kim &lt;sophia.kim@lacity.org&gt;

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**8331-8339 W. 3rd St. proposed development**

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**Steven Dersh** <almontralestate@gmail.com>

Fri, Aug 25, 2023 at 4:09 PM

To: sophia.kim@lacity.org

Cc: Dylan Sittig &lt;dylan.sittig@lacity.org&gt;, Thao Tran &lt;thao.tran@lacity.org&gt;, ken.bernstein@lacity.org, Councilmember.Yaroslavsky@lacity.org

Dear Ms. Kim:

We have become aware of a proposed 8 story oversized development at [8331-8339 W. 3rd St., Los Angeles](#). I am one of the owners of the apartment building directly next to this development and have serious concerns as do our partners, tenants and neighbors.

It appears the developer has applied for expedited processing and for a density bonus. A thorough and thoughtful review of this excessively high development must be made with adequate neighborhood input. While we understand the city's desire for more housing, development needs to be done in areas that do not destroy the character and quality of life for the neighborhood and community. This project, as proposed, does not fulfill these characteristics and is completely out of size and height for the 3rd St. neighborhood. In addition, the lack of parking is an issue. The Planning Department and City Council should take into consideration the authority they have to modify such egregious development proposals.

While we all will be watching as closely as possible, please know that we, our tenants and most others oppose the project as has been currently presented.

We will appreciate any relevant information relating to this proposed development as it proceeds through the city.

Thank you.

Sincere regards,  
Steven Dersh  
Flores Street Partnership





Alice Okumura &lt;alice.okumura@lacity.org&gt;

---

## Fwd: Building at Flores and Third

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Thao Tran <thao.tran@lacity.org>  
To: Alice Okumura <alice.okumura@lacity.org>

Mon, Dec 18, 2023 at 5:18 PM

Hi Alice,

I forgot to copy you on my reply to Sal.

----- Forwarded message -----

From: **Thao Tran** <thao.tran@lacity.org>  
Date: Mon, Dec 18, 2023 at 5:18 PM  
Subject: Re: Building at Flores and Third  
To: Sal LoCurto <salloc12@me.com>

Hi Sal,

Thanks for appreciating the dog! I was told later that there was a misunderstanding with the developer. He was expecting to have audio/video capabilities to conduct his presentation and when it wasn't confirmed, he notified the council that he could not present but that message had not made its way through the council by the time we met. Regardless, the developer and NC confirmed they would present at the next January NC general board meeting.

Given the strong public reaction to the lack of parking stalls at this proposed development, I looked into the parking codes currently required on new developments. I regret to inform you that I also learned that the developer is no longer required to include parking in new developments. This is a result of a new State Bill AB2097 signed last year and here is the relevant part you should know:

*"On September 22, 2022, the Governor signed Assembly Bill (AB) 2097, which added Government Code Section (§) 65863.2. AB 2097 prohibits a public agency from imposing or enforcing any minimum automobile parking requirement on any residential, commercial, or other development project"*

If you would like to learn more about the development review process, this [Planning 101](#) video provides a good overview of the Planning Department's review process for this and other cases; including information on the different decision makers.

In the future, you'll want to send your comments and any questions to the Planning Department staff assigned to this case to be sure that your comments are included in the official record for the case; for this case the Planning staff is **Alice Okumura** <alice.okumura@lacity.org>. You can also ask the planning staff to add you to the interested parties list to receive future notifications related to this project.

I hope this information is useful. Let me know if you have any questions.

Respectfully,

--



**Thao N. Tran**  
FIELD DEPUTY - MID-CITY WEST/P.I.C.O.

O: (213) 473-7005

C: (213) 898-4959

Los Angeles City Hall  
200 North Spring St., Room 440

On Tue, Dec 12, 2023 at 7:22 PM Sal LoCurto <[saloc12@me.com](mailto:saloc12@me.com)> wrote:

The developers not being here demonstrated why I'm very suspicious about this project. His absence is by design.

Doggie is cute!

Sent from my iPhone

On Dec 12, 2023, at 6:35 PM, Sal LoCurto <[saloc12@me.com](mailto:saloc12@me.com)> wrote:

Thanks. I'm on my way.

It's just perceived as fast tracked, by me. I could be wrong. It's very hard to keep track of all of the developments in the area. It seems like if you're not on top of tracking everything things just happen . Also I heard there were many objections at the local council meeting and they unanimously voted in favor of the project. That's never encouraging.

Sent from my iPhone

On Dec 12, 2023, at 4:52 PM, Thao Tran <[thao.tran@lacity.org](mailto:thao.tran@lacity.org)> wrote:

Hi Sal,

I will be hearing the developer's presentation for the first time tonight and will be reporting back tonight's discussion to our office so it's still too early in the process for our office to form any opinion. Can you explain why you feel this is being fast tracked? In terms of process, we don't control the internal scheduling/activities for this neighborhood council or any NCs in the district so I can't explain how this project worked its way through this body.

There are certain variances that allow developers to apply for density bonuses and variances to municipal code such as parking; therefore the community's feedback and deliberation is incredibly important in these neighborhood council meetings because they serve as advisory boards to all city council members.

I encourage you to attend tonight's meeting if you feel this neighborhood council is not addressing your questions for the developer. Let me know if you have any questions.

Respectfully,

--



[cd5.lacity.gov](http://cd5.lacity.gov)

**Thao N. Tran**  
FIELD DEPUTY - MID-CITY WEST/P.I.C.O.

O: (213) 473-7005

C: (213) 898-4959

Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012

On Tue, Dec 12, 2023 at 3:06 PM Sal LoCurto <salloc12@me.com> wrote:

My questions are, why is the developer requesting conditional use permits to not provide parking? An eight story building will bring a lot of cars?

Why does it have to be so high?

Why does it appear that this is being fast tracked?

Eight low income units isn't going to solve anything. Is this a loop hole to get a special condition to bypass normal building codes?

What's is the councilwoman Yaroslvsky's position on this?

I'm trying to get to the meeting tonight.

Thank you,  
Sal LoCurto

Sent from my iPhone

On Dec 12, 2023, at 2:53 PM, Thao Tran <thao.tran@lacity.org> wrote:

Hi Sal,

It's described as an 8 story Mixed Use Multifamily Development with 77 dwelling units including 8 Extremely Low Income units over approximately 11,200 SF of commercial space.

Below is the link to the case file in the Planning Department.

<https://planning.lacity.org/pdiscaseinfo/search/encoded/MjY4NTky0>

The project will be discussed at the Mid City West Neighborhood Council general board meeting tonight at Pan Pacific Park. Let me know if you have any other questions.

Respectfully,

--



[cd5.lacity.gov](https://cd5.lacity.gov)

**Thao N. Tran**  
**FIELD DEPUTY - MID-CITY**  
**WEST/P.I.C.O.**  
**O: (213) 473-7005**  
**C: (213) 898-4959**

Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA  
90012

On Mon, Dec 11, 2023, 10:34 PM Sal LoCurto <salloc12@me.com> wrote:

What can you tell us about this project?

Is this flyer accurate? If so, I am very concerned.

Thanks,  
Sal LoCurto

Sent from my iPhone



[cd5.lacity.gov](https://cd5.lacity.gov)

**Thao N. Tran**

**FIELD DEPUTY - MID-CITY WEST/P.I.C.O.**

**O:** (213) 473-7005

**C:** (213) 898-4959

Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012



Alice Okumura <alice.okumura@lacity.org>

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**8331 W. 3rd St. (CPC-2023-4573-DB-CU-HCA)**

---

**Steven Dersh** <almontralestate@gmail.com>  
To: "alice.okumura@lacity.org" <alice.okumura@lacity.org>

Mon, Dec 18, 2023 at 9:45 AM

Dear Alice:

I just left you a voicemail message as I would like to discuss concerns regarding a proposed development at 8331 W. 3rd St. (CPC-2023-4573-DB-CU-HCA). Please call me either at (310)459-7953 or on my cell at (310)871-8756.

Thank you.

Sincerely,  
Steven Dersh  
Flores Street Partnership



Alice Okumura &lt;alice.okumura@lacity.org&gt;

---

**8331 W. 3rd St. CPC-2023-4573-DB-CU-HCA**

1 message

**Steven Dersh** <almontralestate@gmail.com>

Wed, Jan 10, 2024 at 12:06 PM

To: Alice Okumura &lt;alice.okumura@lacity.org&gt;

Cc: Sophia Kim &lt;sophia.kim@lacity.org&gt;, Trevor Martin &lt;trevor.martin@lacity.org&gt;, Thao Tran &lt;thao.tran@lacity.org&gt;, Jennifer Torres &lt;jenny.torres@lacity.org&gt;, Councilmember.Yaroslavsky@lacity.org, Kristina Kropp &lt;kkropp@lunaglushon.com&gt;, Rob Glushon &lt;rglushon@lunaglushon.com&gt;

Dear Alice:

I am writing to highlight some, but not all, of the issues raised during yesterday's public hearing. The many speakers highlighted opposition to the proposed development with **no** credible support. Some of the issues include:

1. Lack of parking. Per AB2097, the State does give local agencies the option to impose minimum parking requirements in limited instances. With regard to the proposed development, why was parking not required knowing the significant negative impact and the hardship and discrimination to the community this proposed development will create?
2. Two stories of subterranean parking should be required and is totally feasible. Two story subterranean parking has been built at other properties in the neighborhood. In fact, two story subterranean parking is planned for an apartment building currently in plan check on the same Flores St. block at the proposed development.
3. The request to waive the loading space requirement must be denied. As stated by our attorney in writing and in the public hearing, there **must** be sufficient loading spaces on the proposed development property for moving trucks, delivery trucks, etc.
4. Environmental studies must be done including, but not limited to, a traffic and shadowing study. The environmental study that allegedly was done but is not in the file will, I believe, prove to be a made to order study.
5. The self serving statements by the developer's representative are, in part, factually incorrect. There are currently 552 apartments available on [apartments.com](https://apartments.com) just in the 90048 zip code. Certainly not a shortage. The issue is affordability. The 8 low income units and 69 luxury, market rent units in the proposed development will be entirely insignificant to address affordable housing while creating severe and irreversible damage to the neighborhood.
6. If the proposed building does not provide adequate parking for all their tenants (commercial and residential), then they must not be permitted to qualify to obtain **any** street permit parking passes.
7. A public hearing speaker, Mr. Walter Morgan, spoke of 20 more residents in opposition for every 1 who spoke at the hearing. I believe that 99% of the neighborhood is in opposition to the proposed development.
8. A public hearing speaker, Mr. Ken Best, is a doctor with his office located directly across the street from the proposed development and also lives on Sweetzer (one block away). Mr. Best stated that he (as so many other residents testified) has a hard time finding parking when he has to park on the street. Mr. Best stated that he would have to move his office as his clients already currently have difficulty finding parking. Mr. Best stated that this proposed development would force him to move his offices along with other business being forced to move. He also mentioned the loss of income in the area caused by this proposed development and that he was sure there will be a class action lawsuit against the city for allowing this project to go in.
9. Issues of the developer's request for excessive density, excessive height and zero setbacks.

Neighbors I have spoken to and myself are truly appreciative that Councilwoman Yaroslavsky would like the applicant to have conversations around addressing community concerns with the project and that she does not support the project as proposed.

Certainly the City has the ability to deny this application and must do so. With respect to Mr. Best's testimony, I believe a lawsuit will be filed against the City and developer if the proposed development is approved by the City and community concerns are not sufficiently addressed.

Sincerely,  
Steven Dersh  
for Flores Street Partnership



Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

## Re: Parking and new building

Thao Tran <[thao.tran@lacity.org](mailto:thao.tran@lacity.org)>

Mon, Dec 18, 2023 at 10:35 AM

To: Tara Turk-Haynes <[ttaraturk@gmail.com](mailto:ttaraturk@gmail.com)>

Cc: Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>, Jennifer Torres <[jenny.torres@lacity.org](mailto:jenny.torres@lacity.org)>

Hi Tara,

Thank you for providing your feedback regarding this project. Councilwoman Yaroslavsky is interested in hearing from the community about this project. She wants to encourage the community to further engage with the development team to work on mutually beneficial solutions. Our office is not a decision maker on this project. There will be at least two City-hosted public hearings in the future for this project.

In the future, please also send your comments and any questions to the Planning Department staff assigned to this case to be sure that your comments are included in the official record for the case; for this case the Planning staff is Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>. You can also ask the planning staff to add you to the interested parties list to receive future notifications related to this project. I'm looping in Alice Okumura on this email for her awareness of your comments.

Given the strong public reaction to the lack of parking stalls at this proposed development, I looked into the parking codes currently required on new developments. I regret to inform you that I also learned that developers are no longer required to include parking in new developments. This is a result of a new State Bill AB2097 signed last year and here is the relevant part you should know:

*"On September 22, 2022, the Governor signed Assembly Bill (AB) 2097, which added Government Code Section (§) 65863.2. AB 2097 prohibits a public agency from imposing or enforcing any minimum automobile parking requirement on any residential, commercial, or other development project"*

This information is meant to inform you about current municipal code regarding parking minimums on new developments and does not imply your remarks about the lack of parking are not a valid concern. If you would like to learn more about the development review process, this [Planning 101](#) video provides a good overview of the Planning Department's review process for this and other cases; including information on the different decision makers.

I hope this information is useful and I look forward to hearing more discussions between the community and the developer to help shape this project going forward.

Respectfully,

--



[cd5.lacity.gov](http://cd5.lacity.gov)

**Thao N. Tran**

**FIELD DEPUTY - MID-CITY WEST/P.I.C.O.**

**O:** (213) 473-7005

**C:** (213) 898-4959

Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012

On Sun, Dec 17, 2023 at 9:39 AM Tara Turk-Haynes <[ttaraturk@gmail.com](mailto:ttaraturk@gmail.com)> wrote:

Hello,

as a resident on Kings Road, I am emailing to express my concern for a couple of things. When the new construction or building on Flores Street is particularly concerning only in that there seems to be no plan for parking for the residence of that building and if there's retail. Second, which leads me to the first point as well, parking in this neighborhood on Kings Road has been challenging, especially with the new businesses that are opening up which is great. However, they seem to be parking on the weekends ignoring the permit only signed, which is distressing since many of us pay for parking permits ourselves, as well as our guests and visitors and they don't have any place to park. It seems as though parking enforcement is not around on the weekends and the new café particularly is taking up a lot of those spaces. I hope that the council will review and take these things into consideration. Thank you.

T. Tara Turk-Haynes

*"I consider that I have many responsibilities, but none greater than this: to last, as Hemingway says, and get my work done." - James Baldwin*





Alice Okumura <alice.okumura@lacity.org>

## Case No: CPC-2023-4573-DB-CU-HCA

2 messages

Alex Walter <awwalter@gmail.com>  
To: Alice.Okumura@lacity.org

Sun, Dec 31, 2023 at 5:24 PM

Alice . . .

1) At . . . <https://planning.lacity.gov/pdiscaseinfo/search/encoded/MjY4NTky0> . . . the public hearing time given as "12:00 AM" is probably not correct. Shouldn't the time be 10:00 AM on January 9, 2024?

2) Since I question the requested Exemptions, Incentives, and Waivers for this project I ask a question as follows: Is there a general short-term, medium-term, or long-term future City Plan for this West 3rd Street area? If so please send it to me or tell me how to find such a City Plan.

Alex Walter  
8336 Blackburn Ave, Apt 7  
Los Angeles CA 90048-4249

Voice & Text Cell: 720-448-4008

email: [awwalter@gmail.com](mailto:awwalter@gmail.com)

Alice Okumura <alice.okumura@lacity.org>  
To: Alex Walter <awwalter@gmail.com>  
Cc: Sophia Kim <sophia.kim@lacity.org>

Wed, Jan 3, 2024 at 8:29 AM

Hello Alex,

Thank you for your email. Case No. CPC-2023-4573-DB-CU-HCA is located within the Wilshire Community Plan. For a background on how community plans within the City establish goals for the city, please see this [link](#). For the Wilshire Community Plan, please see this [link](#). A useful resource is the [Wilshire Community Plan](#) document, which was adopted in 2001.

The Incentives and Waivers of Development of Case No. CPC-2023-4573-DB-CU-HCA is requested under the [State Density Bonus Law](#).

Best,  
Alice



**Alice Okumura**  
Pronouns: She/Her  
City Planning Associate  
**Los Angeles City Planning**  
200 N. Spring St., Room 763  
Los Angeles, CA 90012  
T: (213) 978-1356 | [Planning4LA.org](http://Planning4LA.org)



*Please note that on January 22, 2024 the Processes and Procedures Ordinance will become operative. Applications filed on or after this date are required to use the new forms available on the Department's [Forms page](#).*

[Quoted text hidden]



Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

## Re: 133 S. Flores-MidCity Meeting

**Thao Tran** <[thao.tran@lacity.org](mailto:thao.tran@lacity.org)>  
 To: Glenda Gill <[glendagill3767@gmail.com](mailto:glendagill3767@gmail.com)>  
 Cc: Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

Mon, Dec 18, 2023 at 10:55 AM

Hi Glenda,

I confirmed with the PLUC Chair at Mid City West Neighborhood Council that the developer has rescheduled to present this before the MCWNC board in their January general board meeting to allow adequate notice to the public to attend on Tuesday, January 9th, 2024. There's a good chance next month's meeting will go virtual but please check with their [agenda](#).

Councilwoman Yaroslavsky is interested in hearing from the community about this project. She wants to encourage the community to further engage with the development team to work on mutually beneficial solutions. Our office is not a decision maker on this project. There will be at least two City-hosted public hearings in the future for this project.

In the future, please also send your comments and any questions to the Planning Department staff assigned to this case to be sure that your comments are included in the official record for the case; for this case the Planning staff is Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>. You can also ask the planning staff to add you to the interested parties list to receive future notifications related to this project. I'm looping in Alice Okumura on this email for her awareness of your comments.

I hope this information is useful and I look forward to hearing more discussions between the community and the developer to help shape this project going forward.

Respectfully,

--



[cd5.lacity.gov](http://cd5.lacity.gov)

**Thao N. Tran**  
**FIELD DEPUTY - MID-CITY WEST/P.I.C.O.**  
 O: (213) 473-7005  
 C: (213) 898-4959

Los Angeles City Hall  
 200 North Spring St., Room 440  
 Los Angeles, CA 90012

On Fri, Dec 15, 2023 at 2:00 PM Glenda Gill <[glendagill3767@gmail.com](mailto:glendagill3767@gmail.com)> wrote:  
 Holiday Greetings Thao

I trust you're having a fantastic day.

We met at the District 5 Council meeting Mid City West on Monday.

I'm reaching out to be included on the December 18th Zoom meeting for discussion on the new property on 3rd .

Please add me to [glendagill3767@gmail.com](mailto:glendagill3767@gmail.com). I appreciate your assistance and will speak soon.

Thanks,  
 Glenda Gill





Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

## Re: Point council member for the 8331 – 8349 W 3rd Street development intel

Jerri Howell <[jerritv@me.com](mailto:jerritv@me.com)>

Mon, Dec 18, 2023 at 5:28 PM

To: Thao Tran <[thao.tran@lacity.org](mailto:thao.tran@lacity.org)>, Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>

Cc: Jennifer Torres <[jenny.torres@lacity.org](mailto:jenny.torres@lacity.org)>

Thao, thank you for the quick response and additional intel — and will fully educate myself.

Alice, nice to meet you also and would appreciate being in your notifications group.

Thanks and respectfully,

Jerri

([JerriTV@me.com](mailto:JerriTV@me.com))

On Dec 18, 2023, at 5:17 PM, Thao Tran <[thao.tran@lacity.org](mailto:thao.tran@lacity.org)> wrote:

Hi Jerri,

Thank you for contacting our offices regarding this project. Councilwoman Yaroslavsky is interested in hearing from the community about this project. She wants to encourage the community to further engage with the development team to work on mutually beneficial solutions. Our office is not a decision maker on this project. There will be at least two City-hosted public hearings in the future for this project.

In the future, please also send your comments and any questions to the Planning Department staff assigned to this case to be sure that your comments are included in the official record for the case; for this case the Planning staff is Alice Okumura <[alice.okumura@lacity.org](mailto:alice.okumura@lacity.org)>. You can also ask the planning staff to add you to the interested parties list to receive future notifications related to this project. I'm looping in Alice Okumura on this email for her awareness of your comments.

If you would like to learn more about the development review process, this [Planning 101](#) video provides a good overview of the Planning Department's review process for this and other cases; including information on the different decision makers.

The developer is also scheduled to give a presentation before the [Mid City West Neighborhood Council](#) the evening of Tuesday, January 9th, 2024 at 7pm. This community meeting is open to the public and you are welcome to attend. Let me know if you have any questions.

Respectfully,

--



[cd5.lacity.gov](https://cd5.lacity.gov)

**Thao N. Tran**

**FIELD DEPUTY - MID-CITY WEST/P.I.C.O.**

**O:** (213) 473-7005

**C:** (213) 898-4959

Los Angeles City Hall  
200 North Spring St., Room 440  
Los Angeles, CA 90012

On Mon, Dec 18, 2023 at 5:07 PM Jerri Howell <[jerritv@me.com](mailto:jerritv@me.com)> wrote:

Hi Thao,

Nice to briefly meet you last Monday in that short flurry where you handed out cards!

I'd like to take you up on your offer —> to get on the council member's list you had mentioned to the group — to stay abreast of development intel at the corner of Third Street at Flores St, specifically: **8331 – 8349 W 3rd Street**.

Thanks very much and it looks like the discussion with the developer isn't on tonight's agenda after all?

Any help getting on the right list/s is appreciated.

Best regards,  
Jerri



**BOARD OF DIRECTORS  
2023 - 2025**

**PASSED 22 yeas; 5 nays; 2 abstentions; ON 01/09/2024**

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Julian Stern  
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Don Whitehead  
Xcevio Zuluaga

**Alice Okumura, City Planning Associate  
200 N Spring St, Suite 525  
Los Angeles, CA 90012**

Position: **support**

Case Number: [CPC-2023-4573-DB-CU-HCA](#)

Dear Alice Okumura,

We appreciate the opportunity to comment on this application as the certified neighborhood council serving the area where 8331 W 3RD ST is located.

The application for a new 89,935 square foot, 8-story mixed use residential building containing a maximum of 77 dwelling units, including 8 Extremely Low-Income Units over 11,198 SF of commercial requesting Off Menu Density Bonus with Density Bonus Incentives and Waivers of Development Standards with a Conditional Use Permit for Density greater than 35%. was voted on at our 12/12/2023 General Board meeting. The board of Mid City West Neighborhood Council voted to **support** 8331 W 3RD ST's application to this end. We are convinced that this business will be a good neighbor.

Thank you for your attention to this matter. Please email me at [cdower@midcitywest.org](mailto:cdower@midcitywest.org) if you have any questions.

Sincerely,

Chris Dower, Co-Chair of Planning and Land Use Committee  
Mid City West Neighborhood Council

Cc: Office of Council District 5, Hon. Katy Yaroslavsky via email  
Office of Council District 5, Thao Tran via email  
Office of Council District 5, George Hakopiants via email  
Office of Council District 5, Joaquin Macias via email  
Los Angeles Police Department Wilshire Division via email



Daniel Taban - Flores Fund LLC, Jonathan Yang - Irvine & Associates Inc. (applicants) via email

January 24, 2024

Alice Okumura  
Los Angeles City Planning Department  
200 North Spring Street  
Los Angeles, CA 90012

**Subject: Support for Mixed-Use Development at 8339 W Third Street, Los Angeles, CA**

Dear Planning Department,

As a concerned and involved member of the Los Angeles community, **I am writing to express my support for the proposed mixed-use development at 8339 W Third Street.** This project presents a critical opportunity to address the pressing need for more housing in our area and to revitalize an underused space in our neighborhood.

The addition of new residential units is essential in our city's struggle with a severe housing shortage. This development will offer various housing options, making it a valuable resource for residents seeking safe and comfortable living spaces. Furthermore, the mixed-use nature of the project promises to transform the currently vacant lot into a dynamic space that benefits the entire community, combining residential, commercial, and public areas.

This development is not just about new buildings; it's about enhancing our community's overall quality of life. This development will contribute to the fabric of our neighborhood by creating a more vibrant and interactive community. Additionally, the commercial aspects of the project will stimulate local economic growth and provide job opportunities.

I urge the Los Angeles City Planning Department to approve this vital project, which I believe will significantly contribute to our community's welfare and the sustainable growth of our city.

Thank you for your attention to this important matter.

Sincerely,

  
Andrew Farhadi



1/24/24

Alice Okumura  
Los Angeles City Planning Department  
200 North Spring Street  
Los Angeles, CA 90012

**Subject: Support for Mixed-Use Development at 8339 W Third Street, Los Angeles, CA**

Dear Planning Department,

As a concerned and involved member of the Los Angeles community, **I am writing to express my support for the proposed mixed-use development at 8339 W Third Street.** This project presents a critical opportunity to address the pressing need for more housing in our area and to revitalize an underused space in our neighborhood.

The addition of new residential units is essential in our city's struggle with a severe housing shortage. This development will offer various housing options, making it a valuable resource for residents seeking safe and comfortable living spaces. Furthermore, the mixed-use nature of the project promises to transform the currently vacant lot into a dynamic space that benefits the entire community, combining residential, commercial, and public areas.

This development is not just about new buildings; it's about enhancing our community's overall quality of life. This development will contribute to the fabric of our neighborhood by creating a more vibrant and interactive community. Additionally, the commercial aspects of the project will stimulate local economic growth and provide job opportunities.

I urge the Los Angeles City Planning Department to approve this vital project, which I believe will significantly contribute to our community's welfare and the sustainable growth of our city.

Thank you for your attention to this important matter.

Sincerely,



Benjamin Keywanfar

January 23, 2024

Alice Okumura

Los Angeles City Planning Department

200 North Spring Street

Los Angeles, CA 90012

**Subject: Support for Mixed-Use Development at 8339 W Third Street, Los Angeles, CA**

Dear Planning Department,

As a concerned and involved member of the Los Angeles community, **I am writing to express my support for the proposed mixed-use development at 8339 W Third Street**. This project presents a critical opportunity to address the pressing need for more housing in our area and to revitalize an underused space in our neighborhood.

The addition of new residential units is essential in our city's struggle with a severe housing shortage. This development will offer various housing options, making it a valuable resource for residents seeking safe and comfortable living spaces. Furthermore, the mixed-use nature of the project promises to transform the currently vacant lot into a dynamic space that benefits the entire community, combining residential, commercial, and public areas.

This development is not just about new buildings; it's about enhancing our community's overall quality of life. This development will contribute to the fabric of our neighborhood by creating a more vibrant and interactive community. Additionally, the commercial aspects of the project will stimulate local economic growth and provide job opportunities.

I urge the Los Angeles City Planning Department to approve this vital project, which I believe will significantly contribute to our community's welfare and the sustainable growth of our city.

Thank you for your attention to this important matter.

Sincerely,

Daniel Reisfeld

January 16, 2024

Alice Okumura  
Los Angeles City Planning Department  
200 North Spring Street  
Los Angeles, CA 90012

*Via E-mail: Alice.okumura@lacity.org and cc  
thao.tran@lacity.org and  
jenny.torres@lacity.org*

Re: **Support for Mixed-Use Development**  
Location: 8339 W 3rd Street, Los Angeles, CA

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8339 W 3rd Street, Los Angeles, CA  
January 24, 2024  
Page 2 of 2

Sincerely,

*Ryan J D*  
Ryan J. Daneshrad